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ABSTRACT

The Program Classification Structure (PCS) was developed to provide a consistent means of identifying and organizing the activities of higher education in a program-oriented manner. It was developed with 5 considerations in mind: (1) to provide a common framework for classifying and organizing the program elements of higher education institutions; (2) to provide a structure that is usable by a substantial variety of institutions with a wide range of institutional objectives; (3) to retain, where feasible, compatibility with current institutional structures; (4) to facilitate the transformation of data between existing institutional accounts and the PCS; and (5) to facilitate the exchange of institutional data and subsequent comparison and analysis. The underlying philosophy of the PCS assumes that institutions of higher education will continue in their efforts to develop systems that reflect the concepts of program budgeting. It is upon these concepts that the structure has been designed, with certain modifications to reflect the current realities of American higher education. (Author/HS)

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PROGRAM CLASSIFICATION STRUCTURE

First Edition
Technical Report 2

National Center for Higher Education Management Systems
at WICHE

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The Western Interstate Commission for Higher Education (WICHE) is a public agency through which the 13 western states work together

to increase educational opportunities for westerners,
to expand the supply of [illegible] manpower in the West,
to help universities and colleges improve both their programs and their management,
to inform the public about the needs of higher education.

The Program of the National Center for Higher Education Management Systems at WICHE was established by state postsecondary education [illegible] in the West to [illegible] Commission for Higher Education [illegible] Center for Higher Education Management Systems [illegible] purposes in summary:

To design, develop, [illegible] of management information systems and [illegible] common data elements in postsecondary education that will:

- provide improved information [illegible] education at all levels,
- facilitate analyses of [illegible] education,
- facilitate [illegible] the state and institutional [illegible]

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PROGRAM CLASSIFICATION STRUCTURE

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First Edition

Technical Report No. 27

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January 1972

by

Warren W. Gulko, Ph.D.

Director, Development and Applications Program

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PREFACE

The primary mission of the National Center for Higher Education Management Systems at WICHE is to assist colleges and universities with the development of improved resource allocation and management systems. A related objective of the program is the development of procedures that facilitate the exchange of comparable data among institutions. A necessary part of such data exchange procedures will be a standard taxonomy or uniform classification system that identifies and categorizes the activities and programs of higher education institutions.

A preliminary edition of the Program Classification Structure (PCS) was developed by Dr. Warren W. Gulko and the Analytical Task Force in conjunction with various representatives of the NCHEMS participating agencies and institutions. The preliminary edition was published in June 1970 and distributed nationally in order to solicit comments and criticisms from the entire higher education community. A formal review was held in January 1971 to discuss possible changes to the Program Classification Structure. An overwhelming number of comments have been received and each has been considered by the staff and the Program Classification Structure Task Force. The first edition represents the consensus regarding the best manner to structure data for planning and analyzing higher education programs. Portions of the document may still be considered controversial by some individuals. We have attempted to reconcile the various points of view and to find a level of compromise between theory and practice. It is our hope that the resultant Program Classification Structure contains the degree of flexibility necessary for it to be useful to colleges and universities while not sacrificing the rigor necessary for interinstitutional purposes.

This first edition of the Program Classification Structure has been approved for release by the NCHEMS Program Classification Structure Task Force and the NCHEMS Technical Council; however, the Program Classification Structure may have to be modified as the form and structure of higher education change over time. To ensure the timely development of a second edition, the NCHEMS staff must receive critical feedback from all interested agencies and institutions. We urge all of those concerned with the future of higher education to consider the application of this document to their institutions and forward any comments, criticisms, or suggestions directly to the author or members of the staff.

Ben Lawrence, Director
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The first edition is a result of incorporating suggested modifications to the preliminary edition. We are grateful for the participation of the 126 college and university representatives who took part in the January 1971 national review of the Program Classification Structure and to the many individuals in the higher education community who found the time to write to us commenting on the various suggested changes. A special acknowledgment is due to Dr. James Topping and Glenn Miyataki, who both assisted in preparing the Program Classification Structure materials, and various members of the NCHEMS staff who contributed to this document.

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CHAPTER I

AN OVERVIEW

The Program Classification Structure has been developed to provide a consistent means of identifying and organizing the activities of higher education in a program-oriented manner. It should be viewed as the basis for subsequent Center projects, since the Program Classification Structure provides a standard framework for arraying a broad range of institutional data. The Program Classification Structure should not be construed as a new chart of accounts, nor is it a specification of a new organization system to be imposed on higher education. Moreover, it is not intended to be a replacement for existing data systems but has been designed to supplement the institution's own unique data system.

The underlying philosophy of the Program Classification Structure assumes that institutions of higher education will continue in their efforts to develop systems that reflect the concepts of program budgeting. It is upon these concepts that the structure has been designed, with certain modifications to reflect the current realities of American higher education. It is not a filing structure for historical data, but instead is a program structure for planning and analysis. However, for certain analytical purposes, the Program Classification Structure may be used to array current and historical data in a program-oriented manner and is being used for these purposes by various other Center products. For example, the Program Classification Structure provides the program dimension for the Manpower Accounting Manual (Minter, 1972), the NCHEMS Faculty Activity Analysis procedures (Romney, 1971), and the revision to the Facilities Inventory Classification Manual (Romney, 1972). In addition, the Program Classification Structure will be the program structure to be used in the Information Exchange Procedures project and is being used as a cost center structure for the Cost Finding Principles (Ziemer, et al., 1971).

The design of the Program Classification Structure assumes that each institution will develop internal transformation routines to convert data from the institution's record system to the Program Classification Structure format. Together with the NCHEMS Data Element Dictionaries, the Program Classification Structure provides the basic foundation for developing a common language to facilitate the exchange of management information among the NCHEMS participants.

The following pages describe this design. Chapter I discusses the relation of the Program Classification Structure to various analytical methods and the underlying rationale of the structure. Chapter II defines the levels of the structure and the proposed coding scheme. Chapters III and IV provide a detailed description and listing of the proposed programs.

The Role of the Program Classification Structure

The need for a more complete understanding and analysis of the functions and programs of colleges and universities is increasingly acknowledged by the academic community (Johnson and Katzenmeyer, 1969). Often, the information required by decision makers is not readily available under the current mode of operation, and frequently it is difficult to associate costs with major programs that serve the institution's objectives. Standard college and university accounting structures tend to identify line item expenditures with organizational units. They rarely provide the means for aggregating data in relation to institutional program goals and objectives (Farmer, 1970).

The NCHEMS participating institutions have recognized that a way must be found to improve planning and analysis by relating resource information to the achievement of institutional objectives. Such information is necessary in order to evaluate the costs and benefits of alternative programs. In many cases, the evaluation of higher education expenditures and benefits will require a comparison of data from similar institutions. The Program Classification Structure has been developed to facilitate this comparison of information by providing a foundation for achieving comparability in the exchange of institutional data.

The Program Classification Structure has been developed with five considerations in mind:

1. To provide a common framework for classifying and organizing the program elements of higher education institutions.

2. To provide a structure that is usable by a substantial variety of institutions with a wide range of institutional objectives.

3. To retain, where feasible, compatibility with current institutional structures.

4. To facilitate the transformation of data between existing institutional accounts and the Program Classification Structure.

5. To facilitate the exchange of institutional data and subsequent comparison and analysis.

Although higher education may continue to maintain varied, traditional reporting structures, a means must be developed for viewing academic institutions as a series of goal-oriented activities related to the missions and specific objectives of the institution. A system that will help sort out and trace the utilization of all resources channeled into the institution will aid management in determining how available resources are utilized by the various activities. By relating expenditures to objectives, management will be better able to evaluate alternatives and consider decisions regarding the allocation of scarce resources.

Relation to Other Analytical Tools

It is increasingly apparent that the conceptual tools of economics and management science can play a valuable role in the management of colleges and universities. The advent of modern computer technology has made the use of such management tools a reality. In the years ahead, the application of program budgeting, cost/benefit analysis, analytical models, cost exchange procedures, and unit costing will be a commonplace occurrence in higher education. The Program Classification Structure has been developed to enable the application of these techniques to higher education. The following paragraphs describe the relation of the Program Classification Structure to some of these conceptual tools.

Program Budgeting

Rapid growth in the size and complexity of higher education, coupled with its rapidly rising cost, has been one of the causes of increased public interest in college and university expenditures. Such public concern has highlighted the need for a better understanding of resource allocation processes in higher education (Tyler, 1969). Today's college administrator is faced with an array of difficult decisions as he contemplates the increased costs for maintaining existing programs, worries about providing for a changing student population, seeks to improve the quality of education, and attempts to meet the demands for new and expanded services. In addition, the college administrator often must contend with taxpayers' reluctance to provide additional resources without a plausible justification for the increasing costs. Thus, intelligent decision making in higher education requires more and better information, and academic decision makers are seeking new techniques to aid in the collection and interpretation of data (Johnson and Katzenmeyer, 1969). However, very few institutions of higher education can provide their chief administrators with this capability to evaluate the costs of alternative programs and relate these expenditures to some measure of achievement of institutional objectives. Faced with limited resources, increasing demands for services, and an anxious public, administrators are forced into severely constrained decisions. Management by crisis rather than by orderly planning is often the case.

Academic administrators now are seeking to extend the capabilities of the fund accounting system to incorporate techniques that satisfy traditional accounting needs while at the same time support the management decision function (Beach, 1969). A major tool to aid the academic manager in making resource allocation decisions is a higher education program budgeting system. Hirsh (1969) has suggested that the existing budgeting procedures in higher education are ". . . so patently uninformative that they effectively conceal most of the needed insight." While Hirsch may be overstating the case, the interest in Farmer's recent monograph (1970) demonstrates that a large part of the academic community is now looking to "Planning, Programming, and Budget Systems" (PPBS) as a promising method for improving the management of higher education.

A budget, Williams (1966) says, is more than an instrument of fiscal control. "A budget should also lay bare the efficiency (or lack thereof) with which a university is combining its available resources to achieve results that promote the goals and objectives of that university." Program budgeting is not a new accounting system, nor is it a more effective bookkeeping system. Szanton (1968) says it is a system that attempts to ". . . change the method by which decisions regarding the appropriate allocation of resources come to be made." A program budget system identifies and organizes the activities of an institution in terms of its objectives, displays the costs of these activities over an extended time frame, and relates these activities and their costs to the outputs associated with the achievement of the institution's objectives. Program budgeting should be used in a manner that facilitates planning and management within the institution and that is best accomplished if the program structure and the organization structure are closely aligned in order to manage the program activities (Ruefli, 1971). Thus, implementation of a program budget must be based on the identification of specific institutional objectives. Further, the program budgeting approach requires that dollars and other resources be aggregated in relation to output-producing programs as well as organizational units and that this program output be defined in a measurable fashion (Hartley, 1968). Finally, the programs of the institution must be organized in such a fashion that management can exercise control over the inputs, the processes, the extent of resource utilization, and the outputs of each program.

The Program Classification Structure is not, per se, a program budgeting system. There is, however, an obvious relationship between the two: the development of a program structure represents an essential first step toward implementing a program budget system. The structure presented here is but one of many alternative structures that could be used for higher education program budgeting. Although it has been developed in a generalized manner to accommodate a wide variety of educational institutions, the Program Classification Structure is relatively consistent with the current program budgeting efforts of some of the major institutions of higher education;

e.g., The University of California, The State University System of Florida, Ohio State University, University of Toronto. It is hoped, therefore, that the Program Classification Structure is sufficiently flexible to be used without extensive modification by institutions wishing to adopt a program budgeting system. To this end, it is intended that the Program Classification Structure will facilitate the adoption of program budgeting techniques in the management of higher education.

For the purpose of the Program Classification Structure, a program is defined to be a collection of program elements serving a common set of objectives. A program element is defined to be the lowest level distinct management unit that comprises a collection of resources, technologies, and policies which, through their integrated operation, produce goods or services, i.e., an output, which is of value to the organization because it contributes to the achievement of an institutional objective. (See page 13.) The program element is the basic unit of a program budget. All other levels are aggregations of program elements. The resources of the organization reside with the program elements in the sense that resources are assigned to program elements in order to achieve outputs. Hence, the resources reside with programs, although the outputs of any one program element (or multiples of program elements) within a program may benefit other programs. Thus, it is necessary to distinguish between the assignment of resources to programs and the use of resources (in the context of benefits) by programs. Anthony (1970) has drawn this distinction well in his discussion of cost analysis by defining "cost" as measuring the use of resources. We may extend this by defining "budget" as measuring the assignment of resources. However, it is important to note that program budgeting focuses on the assignment of resources to programs in order to produce outputs, not on the processes by which the outputs are produced. Cost analysis, studies of alternative technologies, and production function analyses are all related to the budgeting process in that they contribute information for decision making, but they are not an integral part of the budget itself. A program budget should be designed to provide data for analytical purposes, but it will not provide the analysis. The application of analytical methods should, over time, result in a budget process that more closely aligns the allocation of resources to the purposes and outputs of the organization. A variety of other analytical tools such as those discussed in the following paragraphs are required to support a program budget system in the complex environment of higher education.

Cost/Benefit Analysis

One way of stating the purpose of program budgeting is to say that it is intended to "bare the soul" of expenditures over a period of time and to relate these expenditures to program objectives (Williams, 1966). This process necessarily involves consideration of the costs and benefits of various alternatives. Thus, an important part of the budgeting process is the determination of which of the alternative courses of action should be selected and how the normally finite resources are to be distributed among

the virtually unlimited number of competing programs. Cost/benefit analysis, according to Prest and Turvey (1965), may be considered as a form of applied economic analysis that attempts to maximize " . . . the present value of all benefits less that of all costs subject to specified restraints." Keller (1967) has defined cost/benefit analysis as ". . . both an attitude and a set of formal analytic techniques which attempt to relate the costs and benefits of competing programs in a rigorous quantitative fashion so that choices can be made about preferred courses of action."

Cost/benefit analysis in higher education attempts to assist administrators in evaluating the cost of an individual program relative to the expected benefits of that program and other alternative programs. Through such analysis, institutions of higher education should be able to understand more completely the full costs of meeting specified output objectives, to plan in such a manner as to make more efficient use of available resources, and to compete more effectively for additional resources. However, general acceptance of cost/benefit analysis has been slow because of the problems associated with measuring the benefits of higher education. Although many studies have been undertaken, some of which have exhibited a careful and thoughtful approach to the problems, the general application of cost/benefit analysis will remain a theoretical exercise until more is known about measuring and evaluating the outputs or benefits of institutions of higher learning. (See, for example, Campbell, 1969; Carpenter and Rapp, 1969; Froomkin, 1969; Hamelman, 1969; and Pavese, 1968.)

The Program Classification Structure may serve as the vehicle for linking resource data to program objectives and thus should contribute significantly to effective analysis of higher education. Although some may argue that program budgeting and cost/benefit analysis are independent (Hitch, 1969), the application of the Program Classification Structure to higher education cost/benefit analysis may prove to be a necessary part of the cost determination. Further, the definition of the benefits of higher education and more specifically the determination of measurements of these benefits are crucial to the widespread adoption of this form of analysis and are, therefore, a matter of highest priority:

> To attain efficiency in higher education requires a comparison of the benefits produced and the cost entailed by higher education decisions. From society's point of view, it is the difference between these two values which must be maximized if resources are to be efficiently allocated. For this reason, discussions of economic efficiency in higher education require a concern with both volume and quality of output (and its measurements) in the cost of higher education institutions . . . . In assessing the efficiency in equity goals, an important problem is in determining both the returns from investment in higher education and the distribution of these returns among the people. The difficulty

> in assessing these returns inheres in the fact that many of the benefits, as well as the cost of higher education, do not accrue directly to the individual who is being educated. Indirectly, the student's family, as well as the entire society, benefits when a student obtains the higher education (The Economics and Financing of Higher Education in the U.S., 1969).

Analytical Models

The imbalance that currently exists between decision requirements and available information is becoming evident as educational resources grow increasingly scarce and the demand for services expands. The development of analytical models to evaluate the current operations and to analyze the future consequences of alternative courses of action will help to alleviate this imbalance.

An analytical model may be defined as a replication of a real or hypothetical system that specifies relationships between the various components of the system. As described by Hillier and Liebermann (1968):

> Mathematical models have many advantages over a verbal description of the problem. One obvious advantage is that a mathematical model describes a problem much more concisely. This tends to make the overall structure of the problem more comprehensible, and it helps to reveal important cause-and-effect relationships. In this way, it indicates more clearly when additional data are relevant to the analysis. It also facilitates dealing with the problem in its entirety and considering all of its interrelationships simultaneously. Finally, a mathematical model forms a bridge to the use of high-powered mathematical techniques and the use of electronic computers to analyze the problem.

Analytical models are an important element in the management of any large scale enterprise. They are often the only timely means of deriving a set of feasible alternatives for accomplishing some given objective. Thus, models are an integral part of a program budgeting system. Further, the application of modeling in higher education has other benefits. As Keller (1967) points out, model building is useful in four ways:

1. Development of the model automatically forces a deeper understanding of the interactions within the system under study; unsuspected attributes and linkages are discovered, and new insights into the real nature of the problem are fostered.

2. Models permit the evaluation of a wide range of alternatives -- surely a key feature of cost/benefit analysis. And, within a given alternative, they help trace out the cost/benefit curve so that marginal analysis is possible. Further, where the interacting variables are numerous or complex, a model can evaluate the implications of changed inputs or assumptions in a way quite beyond the powers of the average decision maker or analyst -- or even the judgment of an experienced professional in the field. Occasionally in these circumstances quite counterintuitive answers emerge -- and when subjected to empirical verification, are found to be true.

3. Moreover, models help provide a hedge against risk and uncertainty. They answer the decision maker's perpetual question, "What if . . .?" A model can give him some idea of how the apparently preferred solution or alternative may vary in effectiveness over a wide range of less probable, but still conceivable, circumstances. This kind of information gives the decision maker a better idea of the degree of risk he may be undertaking (or at least the penalty for being wrong) or may lead to the choice of an alternative with greater insurance features.

4. Similarly, where low confidence attaches to the most probable values for key input parameters, models help cope with uncertainty. Input values can be varied over an appropriate range to: (a) identify those inputs to which the solution is most sensitive; (b) establish quantitatively the degree of sensitivity; and (c) determine break-even points at which ostensibly preferred solutions are no longer attractive.

The first NCHEMS analytical model is the initial version of a Resource Requirements Prediction Model (Gulko and Hussain, 1971). The Resource Requirements Prediction Model (RRPM-1) is a set of generalized computer routines designed to estimate the resource requirements associated with operating an institution of higher education over a specified period of time. This initial model will estimate the budget, manpower, and facilities necessary to support a given number and mix of students subject to a set of planning parameters defined by the institution. The model will represent each of the major programs and subprograms of higher education as defined by the Program Classification Structure but will concentrate initially on the instruction program.

Other NCHEMS models anticipated for the near future are advanced versions of the Resource Requirements Prediction Model and a Student Flow Model. The Student Flow Model is presently under development in a generalized form for both individual campuses and statewide systems. The initial effort is directed toward the development of a campus model that will then be extended to a statewide system model. The campus model is expected by Fall 1972; the statewide system model a year later.

For any single institution the development of such models would be a difficult and costly task; however, the existence of a standard program structure permits models to be developed in a generalized form for use by many institutions. The Center is now organized to develop generalized models in a number of areas of fundamental importance. This central developmental effort will reduce the cost to individual institutions to that of adapting the general model to the institution's unique needs. In the past, the development of generalized models has been restricted because of the many data systems in higher education and the need to tailor the models to the unique structure of each institution. However, the adoption of a uniform standard for classifying institutional activities permits the development of such generalized models by allowing the model to be designed to a common structure that can be related to each institution's data system. Thus, the Program Classification Structure will serve as the communication base, or common "currency of exchange," for all institutions participating in the implementation of NCHEMS analytical models.

Information Exchange Procedures

Historically, American colleges and universities have tended to concern themselves with their own needs rather than the general needs of higher education. One of the significant shifts of higher education in America is the academic administrator's growing concern for the educational needs of an entire state and/or region, and how the goals of an individual college or university fit into these broader educational objectives (Phillips, 1969). Further, the emerging importance of program budgeting in higher education has resulted in the need for improved criteria to evaluate the effectiveness of higher education programs. However, objective measures of efficiency for an institution of higher education are difficult, if not impossible, to devise without comparable data from similar institutions.

This concern for higher education programs on a state and regional basis, coupled with a growing interest by institutions to have comparable data from similar institutions to aid in planning and analysis, has resulted in a nationwide cooperative effort to develop standard procedures for information exchange (Objectives and Guidelines of WICHE MIS, 1969). In order to accomplish the exchange of comparable information, it is necessary to develop a taxonomy of higher education activities that will serve as a structure for classifying

the various kinds of information relating to the programs of higher education. An agreement by participating institutions to adopt a common reporting structure is prerequisite to the exchange of comparable program data (Lawrence, 1969). Thus, development of the Program Classification Structure is the first step toward exchange of comparable data for use in planning and analysis on a program basis. Additional steps will be the development of uniform costing methodologies and conventions (Ziemer, et al., 1971; Romney, 1971; Gulko, 1971) and the development of generalized exchange procedures.

An important related step will be the development and adoption of a standard set of quantitative data categories (program measures) to be incorporated into the Program Classification Structure. With the completion of the first edition, the staff and task force are now turning their attention to the development of program measures for the Program Classification Structure. It is anticipated that the program measures will be available for review by Summer 1972.

When the various measures of higher education activities are developed and accepted by the participating institutions, a basis will have been established for the exchange of meaningful and consistent analytic data to assist in making better resource allocation decisions at both the intra- and interinstitutional level.

Unit Costs of Instruction

One of the more commonly used measures for analysis of higher education programs is the unit cost of instruction. There are various ways to array the data concerning the costs of college instruction. Previous studies have focused on unit cost per credit hour (Joyal, 1960), cost per degree (Butter, 1966), and cost per student (Bowen, 1969). All of these measures have validity in certain specific contexts, but their use has been restricted because of the problems associated with developing compatibility between independent or isolated studies. A stated objective of the Center is to establish compatibility in this area through the development of standard procedures for reporting the unit costs of instruction (Objectives and Time Schedule of WICHE MIS, 1969). These procedures will determine the costs of instruction by:

a. Instruction discipline and level of course

b. Field of study (degree major) and level of student

c. Degree-winner by type of degree and field of study

Instruction discipline refers to the instructional activities within a particular discipline, e.g., physics courses. These may be further distinguished by the target level of instruction; thus, *course level* refers to the level of sophistication at which instruction in a discipline is offered (Thomas, 1970a), e.g., lower division physics. The student's *field of study* refers to the mix of courses that typically may be credited toward a specific academic degree or certificate. Instruction by *student level* is based on the total accredited work by a student and reflects his level of progress toward a degree (Thomas, 1970b), e.g., a sophomore physics major.

Often the program concept is clouded in its application to academic instructional programs because of the dual nature of the instruction-producing activities. For example, all course offerings in physics comprise the physics instruction program; whereas physics majors may take some courses in physics, some in mathematics, etc., to constitute a degree program in physics. Thus, the components of an instructional program may be reviewed in terms of their contribution to a degree program or in terms of their contribution within the instruction discipline. Nevertheless, the distinction between instructional program cost and degree program cost is fundamental and must be kept clear and explicit:

a. The *instruction program* is concerned with the instruction activities in a specific field of knowledge, i.e., typically the instruction offerings of an academic department.

b. The *degree program* is concerned with the instruction activities in which a student engages in the pursuit of a degree or certificate, i.e., the curriculum mixes that lead to the awarding of a specific degree.

The Program Classification Structure is concerned with identifying the resource requirements and related data for specific and discrete entities of the organization. Such discrete management units are referred to as "program elements." (See page 5.) Thus, the Program Classification Structure immediately accommodates costs of an instruction discipline program by course level if instruction program elements are defined as course offerings by level, e.g., lower division physics instruction.

The Program Classification Structure provides a means for analyzing the institution's instruction activities in terms of their contribution to the instruction disciplines. Another important dimension is that of the instruction activities' contribution to the degree program. An analysis of data formatted to the Program Classification Structure will reveal cost information regarding the operation of the instruction program. However, cost analysis of degree programs requires data on both the instruction program and the distribution of student load.

To make the transition from cost by instruction discipline and course level to cost by field of study and student level requires information on the distribution of courses taken by students of various levels in the different majors. This transformation of cost is accomplished through an "induced course-load matrix" (ICLM) -- a matrix that describes the distribution of the average load placed on the instruction program by students pursuing various degrees; e.g., the math courses taken by physics majors, chemistry courses taken by history majors, upper division courses taken by freshmen. The relationship between instruction program cost and degree program cost is the subject of a separate publication. (For further discussion see Gulko, forthcoming.)

The application of these various tools to higher education management is, clearly, a difficult but compelling problem. It should be recognized that academic objectives are multidimensional and consideration must be given to both the quantity and quality of the output. Thus, any criterion for the achievement of an academic objective should reflect both of these dimensions. Further, the restricted nature of resources often requires some degree of trade-off between the quantity and quality dimensions of higher education programs. Such measurements must, therefore, incorporate the interaction between the two. In order to define a set of common measures and objectives for use by colleges and universities, agreement must be reached on such questions as:

a. What goals are various types of institutions seeking to achieve?

b. What specific and operationally identifiable objectives characterize these goals?

c. What are the outputs that contribute to the achievement of specific objectives and how do we measure them?

Development of answers to these questions may necessitate modifications in the Program Classification Structure. The extent of such modification is unknown at this time. However, it is reasonable to assume that modification of this structure is inevitable, for as Melvin Ashen (1965) so wisely stated, "Precisely how to achieve a rational and useful structure for a program budget is not yet evident. Moving toward an optimal structure will inevitably be a gradual process." An optimal Program Classification Structure must, therefore, be developed carefully and thoughtfully and in a manner that is responsive to the needs of academic decision makers. The following paragraphs present a generalized structure that has been developed to further interinstitutional comparability and standardized data exchange. This structure is the result of two years of study and extensive review by a broad spectrum of the higher education community, but only actual application in a variety of colleges and universities can provide the experience needed to further improve the usefulness of this document.

The Rationale of the Structure

The Program Classification Structure is intended to provide a mechanism that will facilitate the organization of data and the use of various planning and management tools. Underlying its design are the concepts of program budgeting and the assumption that most institutions will adopt planning and management systems that reflect such concepts. For these reasons, the Program Classification Structure is oriented to common functional operations found in most institutions of higher education. It is designed to supplement the institution's accounting structure without requiring the institution to restructure its current operational system. For most institutions, a transformation routine can be developed that will provide a crossover from the institution's program structure to the Program Classification Structure without a major change in the data system (Ziemer, et al., 1971).

There are many ways to view the role of higher education. Depending on the perspective, various conceptualizations of primary objectives can be formed; e.g., see Keller (1969). Hartley (1968), writing on educational program planning and budgeting systems, suggests that there is no single "best" program structure for educational organizations because of the diversity of institutional characteristics and the range of missions that may modify the goals. While this may be true, the need for consistent and compatible data among institutions requires that certain conventions be adopted to describe what appear to be the common activities in higher education. The Program Classification Structure is designed to accommodate the objectives and modes of operation common to a wide variety of institutions. Clearly, certain unique institutional characteristics will not be easily identified in the standard Program Classification Structure; nevertheless, the goal is to accommodate the vast majority of institutions by defining the structure in a generalized form consistent with the typical objectives and activities of most colleges and universities. Moreover, the basis of the structure is the program element, defined by the institution, which may be reorganized in a structure that is compatible with an institution's specific objectives. Thus, it is the purpose of the Program Classification Structure to provide a uniform foundation for institutions to use in the adoption of program budgeting techniques. Using this foundation, institutions will modify the structure as necessary to accommodate the goals and purposes of the institution. Such a common foundation should facilitate the restructuring of the institution's program data into a common format for communication and exchange with other institutions.

Within the context of the Program Classification Structure, a program may be considered a set of program elements serving a common set of objectives. The assignment of program elements to programs should be based on the "primary intent" of the program element, i.e., the basic purpose or major reason for establishing and maintaining the program element. Moreover, programs should be structured so that program elements that produce similar outputs are included within the same program. For these purposes, a program element is a discrete

management unit that may be thought of as a collection of resources, technologies, and policies that through integrated operation produce goods or services (i.e., an output) that is of value to the organization because it contributes to the achievement of an institutional objective. The program element represents the smallest, unique collection of resources that are output-producing activities; i.e., a set of resources and activities integrated in such a manner that no one activity or resource, without the contribution or support of the others, can contribute to the objective in a measurable fashion. An instructional course is an example of a program element. For instance, introductory physics is:

a. a collection of resources and technologies (e.g., faculty, technicians, labs, and equipment);

b. integrated through a series of activities (e.g., lectures, labs, discussion sessions);

c. in a manner defined by a set of policies (e.g., lecture outline, lab manual, text);

d. to produce a specific output (e.g., an increased level of knowledge of the basic principles of physics for one or more students);

e. that contributes to an institutional objective (e.g., provide knowledge and learning).

The Program Classification Structure refers to campus programs in two major categories: primary programs and support programs. The primary programs contain the activities directly related to the accomplishment of the primary missions of the institution. Support programs contain those activities that are necessary or vital for the successful operation of the primary programs. Support programs have been structured in a manner that will facilitate the allocation of their costs to the primary programs for the purpose of determining average unit costs and total program costs. This classification is only for convenience in referring to aggregate groupings of programs and is not reflected in the coding.

The arrangement of programs as primary and support inevitably requires a partially arbitrary classification. Many in the academic community would argue that libraries are an integral part of the primary missions of any institution of higher learning. Others may argue that student development is a primary mission and should be so designated. It is likely that similar arguments can be presented for various assignments throughout the structure.

Although some element of arbi rariness is an unfortunate necessity when developing a standard classification scheme, the proposed Program Classification Structure has been developed only after extensive and thorough consultation with various institutions and agencies of higher education. The assignment of program elements to various categories and the classification of programs are based on the "typical institution" notion, i.e., that which will fit the majority of colleges and universities. The design of the structure is sufficiently flexible to accommodate most deviations from the norm. However, if necessary, it is possible to restructure the various programs in order to conform to unique institutional characteristics or other conceptual views of primary and support objectives without redefining the program elements, as demonstrated graphically in Figure 2.4, page 29.

Primary and Support Programs

The traditional functions of higher education have been retained in the Program Classification Structure. Instruction, research, and public service are classified as primary programs. The libraries, administration, and student services are considered part of the support programs. The following is a list of the major programs used in the Program Classification Structure; the organization of this structure is illustrated in Figure 1.1 on page 19.

PRIMARY PROGRAMS	SUPPORT PROGRAMS
1.0 Instruction Program	4.0 Academic Support Program
2.0 Organized Research Program	5.0 Student Service Program
3.0 Public Service Program	6.0 Institutional Support Program
	7.0 Independent Operations Program

Instruction

Institutions of higher education obviously have certain objectives in common. Basic to all institutions of higher education is that they offer some form of postsecondary educational experience and most award degrees or certificates as an indicator of the level of proficiency achieved by the student. Thus, instruction leading toward a formal degree or certificate appears to be a primary objective common to most institutions of higher education. *The instruction program of the Program Classification Structure consists of those program elements whose outputs are primarily eligible for credit in meeting specified formal curricular requirements, leading toward a particular postsecondary degree or certificate granted by the institution.*

A typical instruction program element is a course (or collection of courses) in a given academic discipline that is offered for the purpose of students' earning credit toward a variety of degrees and/or certificates. Under this definition, the instruction program may not necessarily contain all of the "teaching" activities of an institution of higher education. The various

teaching processes within an institution may function for different purposes. Within the Program Classification Structure, the instruction program attempts to capture those teaching activities that take place for the primary purpose of contributing directly to the degree or certificate programs of the institution. Other teaching activities may take place within the context of the public service program, student service program, and other programs of the institution.

Organized Research

In addition to the instruction program, many institutions allocate a significant portion of their resources in support of research activities. *The primary objective of the Program Classification Structure organized research program is the creation and dissemination of new knowledge. It consists of program elements that have been specifically organized to produce research outcomes commissioned by an agency either external to the institution or authorized by an organizational unit within the institution.*

A common research program element is a project undertaken to produce one or more specific research outcomes. Institutions conducting organized research may choose to engage only in projects that also contribute to the achievement of other objectives, e.g., the graduate instruction program. One of the major spillover benefits of the organized research program, therefore, is the opportunity it provides for research activities that are essential to high quality graduate instruction and faculty development. The existence of these spillover benefits may have important cost-reducing effects on the instructional program. Despite these interactions, the organized research activities should nevertheless be identified as distinct program elements since the primary intent of the research activities is the achievement of research outcomes, i.e., new knowledge. It is recognized that the "primary intent" principle, while useful as an initial test for classifying program elements, should not preclude institutional analysis or special studies to determine more explicitly the contribution to joint products. This is of particular concern in the area of organized research where there may be significant joint contribution to both instruction and research objectives. It should also be recognized that organized research does not contain all sponsored activities (e.g., training grants), nor, necessarily, is it exclusively sponsored research, since internally supported research program elements might, under some circumstances, be within this program.

Public Service

Many institutions of higher education provide services to clientele external to the institution, e.g., the general public. *The objective of a public service program is to provide services that are beneficial to groups external to the institution through public service program elements which are established to make available to the public the various unique resources and capabilities of higher education.* Such benefits may be cultural or economic and may be

directed toward individuals, common interest groups, or larger communities. Public service program elements may be noncredit courses, seminars, projects, and various organizational entities established to provide services to particular sectors of the community.

Academic Support

Typically, institutions establish program elements to provide services that are vital to the processes of the primary programs. *The objectives of the academic support program are to provide support services that are an integral part of the operations of the primary programs.* These are defined as the preservation, maintenance, and display of the current stock of knowledge and the provision of various services and capabilities for the primary programs. The academic support program is further characterized by the media and technology employed in accomplishing its overall objectives.

The media for preserving, maintaining, and displaying the stock of knowledge include printed materials and manuscripts, works of art, artifacts, natural objects, motion pictures, video tape, photographs and slides, recordings, and other data recorded in electro-magnetic form. Typically, materials in these various media have been preserved, maintained, and displayed in such functional entities as libraries, museums, galleries, and other repositories. These organizational or physical entities may be categorized by the major academic disciplines to which they are devoted.

Computing support has been included in the academic support program because computer technology is emerging as an important service integral to instruction, research, and public service activities. Consider establishing a modern college or university with an instruction program or research program of any significance without access to a computer facility. It may be that isolated examples can be found that demonstrate that computing support is not always a necessary part of the instruction, research, and public service programs. However, in general it appears that computing services are as much a part of higher education as, say, libraries and, in certain cases, they may supplement the libraries as an information source.

An integral (but separable) part of the primary programs is the management or administrative support operations that function within the various academic units. Such administrative functions typically have responsibility across program lines and therefore have been included as part of the academic support program. Academic support also contains the program elements that have been established to develop future instructional activities in order to separate such investment costs from current operations.

Other ancillary units may be established to provide various services or supplement the activities of the primary programs. These program elements are characterized by the joint product nature of their operation, in that they relate to all three primary programs. An example of an ancillary operation is a teaching hospital that provides the capability for the practical application of the health science disciplines in a manner that directly serves the objectives of the instruction program, the public service program, and often the research program.

Student Service

Nearly every institution commits some resources to provide services for its students. In many colleges such services are an integral part of the student's educational experience. *The overall objective of a student service program is to contribute to the student's emotional and physical well-being and to his intellectual, cultural, and social development outside the context of the formal instruction program.* The student service program attempts to achieve this overall objective by (a) enhancing the student's effectiveness as a student; (b) expanding the dimensions of the student's educational experience; and (c) providing the necessities and conveniences for the physical and emotional well-being of students.

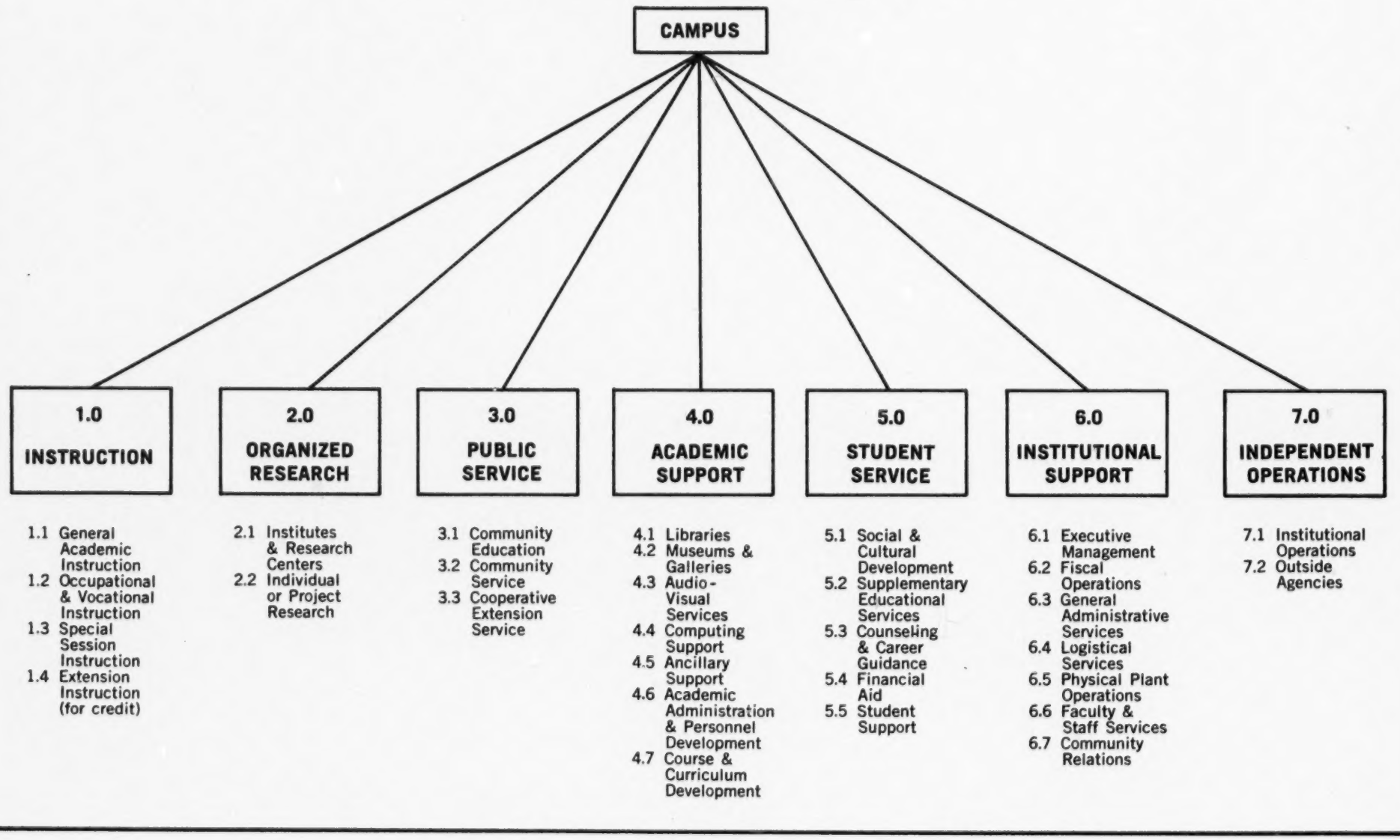
Institutional Support

In higher education, as in any organized system, program elements have been established to provide those services that are necessary to maintain and sustain the organization. The institutional support program consists of program elements that provide operational support for the day-to-day functioning of the organization. *The overall objective of the institutional support program is to maintain the institution's organizational effectiveness and continuity.* It does this by (a) providing planning and executive direction; (b) providing efficient administrative and logistical services; (c) maintaining the quality of the physical environment; (d) enhancing relationships with the institution's constituencies; and (e) providing necessities and conveniences for faculty and staff.

Independent Operations

In addition to the above programs, colleges and universities often engage in activities that are independent of the existence of an institution of higher education. *The independent operations program is established to collect those program elements that may be viewed as not related directly to the objectives of an institution of higher education.*

Figure 1.1. Organization of the Program Classification Structure



CHAPTER II

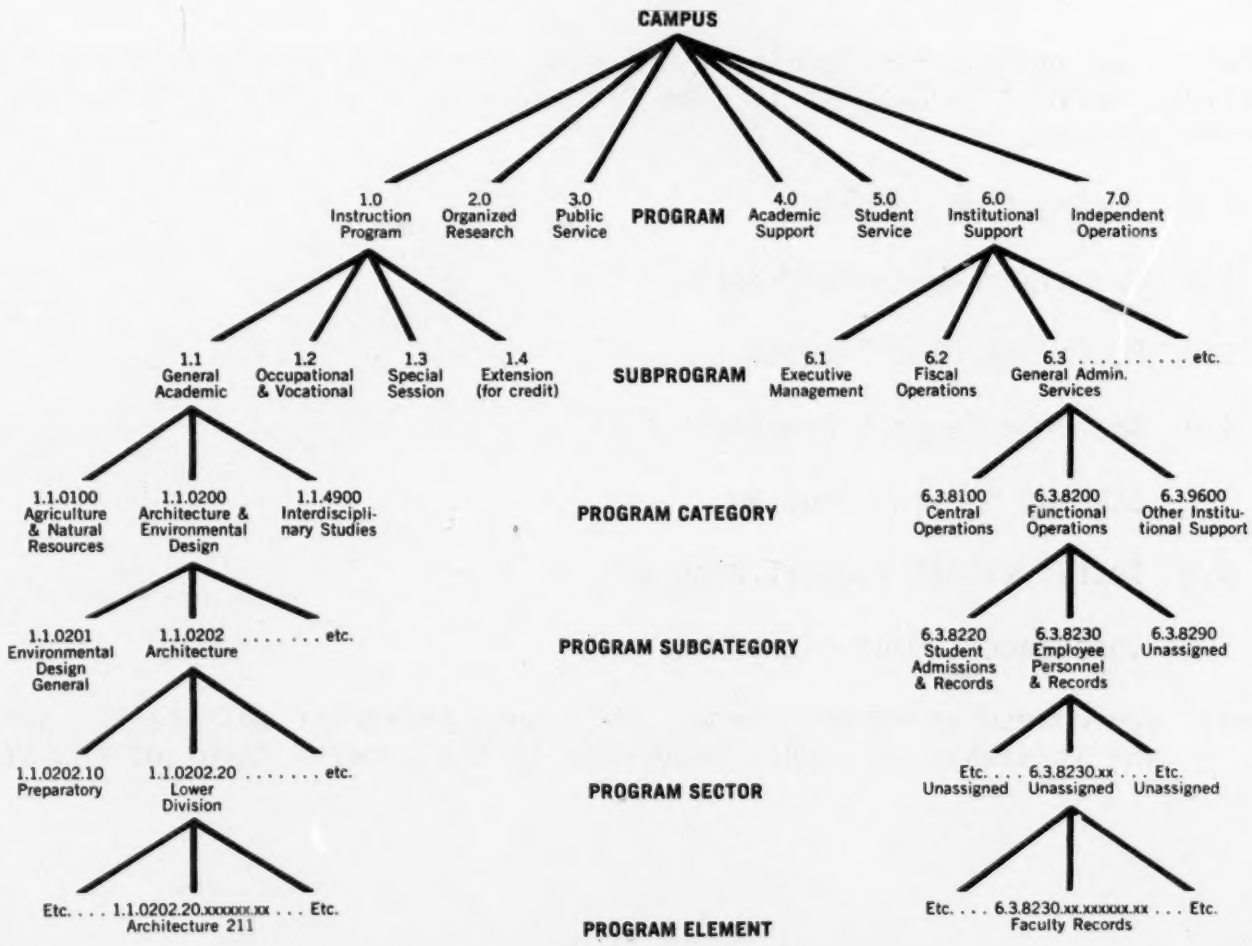
THE PROGRAM STRUCTURE

A program structure is a classification system that categorizes the activities of an organization according to their relationship to the organization's objectives (Barro, 1969). Although various schemes may be used, there are certain aggregation levels that are traditionally found in program structures: (a) Program, (b) Subprogram, and (c) Program Element.

The NCHEMS Program Classification Structure has expanded the number of levels in order to provide alternative aggregation levels and multidimensional classifications for analytical purposes. The levels of the structure are illustrated in Figure 2.1 and described in detail on the following pages.

Program Classification Structure Nomenclature

Figure 2.1. Program Classification Structure nomenclature



Campus

Campus is the highest level of aggregation in the Program Classification Structure. Multicampus institutions and state systems may wish to develop individual, systemwide summary schemes; however, multicampus data may be processed using the Program Classification Structure. Such data may be aggregated and summarized using the unassigned right two characters of the sixteen-character coding structure to identify program elements by campus. Central office units of a multicampus system may be identified by defining the central offices as a separate pseudo-campus and to identify such program elements using the unassigned right two characters of the ending structure.

Primary and Support Programs

Primary programs are those programs that contribute directly to the mission of the institution. For the purposes of the Program Classification Structure, the primary programs are defined as instruction, organized research, and public service. Support programs are those programs that are adjunct to, or in direct support of, the primary programs. Within the Program Classification Structure, the support programs are academic support, student service, institutional support, and independent operations.

Coding: Primary and support programs are implicitly defined and do not require a code.

Program

Program is an aggregation level, structuring program elements into the major objectives defined in Chapter I. The Program Classification Structure is based on seven programs:

1.0 Instruction Program

2.0 Organized Research Program

3.0 Public Service Program

4.0 Academic Support Program

5.0 Student Service Program

6.0 Institutional Support Program

7.0 Independent Operations Program

Coding: Two-character numeric code; the second character defines the subprogram and is always zero when referring to the program level of the structure.

Subprogram

Subprogram is a subdivision of the program for the purpose of collecting program elements into homogeneous sets related to the sub-objectives of the program. Subprograms are listed in Figure 1.1.

Coding: One-character numeric code; used in conjunction with the first character of the program code.

Program Category

Program category is a classification of similar or related program elements by discipline area or major function. The program category permits the classification of program elements independent of the program or subprogram structure and may be used to aggregate functionally related program elements across program lines. Program categories for the instruction program, the organized research program, and the public service program (excluding cooperative extension service) correspond to the standard taxonomy of fields of study used in the Higher Education General Information Survey (HEGIS), which has been published by the National Center for Educational Statistics under the title, A Taxonomy of Instructional Programs in Higher Education (Huff and Chandler, 1970). A reprint, which will be referred to as the "HEGIS Taxonomy," appears in the appendices. The term "discipline category" is used where the program category is an academic discipline that is further subdivided into discipline specialities. For the purposes of the Program Classification Structure, the HEGIS Taxonomy has been adopted as the discipline category coding structure for primary programs. It should be noted that the HEGIS Taxonomy is addressed principally to degree programs rather than instruction programs as defined by the Program Classification Structure. However, it was found that the coding of the HEGIS Taxonomy serves the purposes of this structure and was adopted as the discipline category structure in order to avoid the proliferation of coding systems.

Each program within the Program Classification Structure contains a unique program category for "other" program elements. This "other" program category may be used to identify uniquely the various discipline activities of the institution that do not fit within the specifications of the HEGIS Taxonomy. In addition, institutions should feel free to augment the HEGIS Taxonomy coding for internal purposes but must aggregate such augmentations for external purposes until such time as additional codes are provided in the HEGIS Taxonomy. For example, interdisciplinary program elements should be coded within 49xx, using additional subcategory coding as necessary to augment the present coding; but they should be reported externally as 4999. Note that institutions electing to augment the HEGIS Taxonomy codes should do so recognizing that the federal government may expand the present coding at some later date.

Coding: Four-character numeric code; the last two characters define the subcategory and are always zero when referring to the program category level of the structure. See the appendices for a complete listing of the program categories.

Program Subcategory

Program subcategory is a refinement of the program category and represents the principal aggregation level for collecting program elements organized to achieve or contribute to a specific set of outputs related to the program objectives. Program elements that are substitutes (i.e., produce similar outputs) should be organized within the same program subcategory. In most cases the program subcategories should be aligned with organizational entities (e.g., academic departments) or subsets of organizational entities.

Program subcategories for the instruction program, the organized research program, and the public service program (excluding cooperative extension service) correspond to the discipline subcategories of the HEGIS Taxonomy. (See appendices.)

Coding: Two-character numeric code; used in conjunction with the program category code. See Chapters III and IV of this report for a description of the Program Subcategories.

Program Sector

Program sector refers to a subset of program elements within a program subcategory. It is designed primarily to identify the level of course for instruction program elements, e.g., lower division. Program sector may be used as a convenient identification for institutional analysis in other programs where its use is optional.

Course level refers to the level of offering for instructional courses but may be used in other programs to differentiate various student groups. The following codes are recommended for use in the instruction program (1.0) and are optional for use in the organized research program (2.0), the academic support program (4.0), and the student service program (5.0), where it may be appropriate to link program elements with course levels:

1x. Preparatory

2x. Lower Division

3x. Upper Division

4x. Combined Upper Division and Graduate or Professional

5x. Graduate or Professional Only

9x. Other

Lower division (2x) relates to course offerings at a level of comprehension usually associated with freshman and sophomore students; upper division (3x)

is for course offerings at a level of comprehension usually associated with junior and senior students; graduate and professional (5x) relates to post-baccalaureate offerings. Preparatory (1x) refers to typically noncredit course offerings or substitutes thereof (e.g., examinations) that may be required as part of the curricular requirements or preparation for degree work. Combined upper division and graduate or professional (4x) is to be used in those cases where no distinction is made between undergraduate and graduate courses. Other (9x) is a course level for those situations where the normal course levels are not appropriate. It should be noted that course levels are assigned relative to the intended degree of complexity or expected level of comprehension rather than the level of student enrolled in the course. For example, an elementary algebra course that happens to have an unusually large proportion of seniors enrolled does not become an advanced course by virtue of the participants.

The following codes are recommended for the Public Service Program (3.0):

6x. Individuals

7x. Common Interest Groups

8x. Community Sectors

9x. Other

Individuals (6x) refers to continuing education courses offered for general clientele, i.e., individuals within the community at large. Common interest groups (7x) refers to continuing education for specific professions or special interest groups. Community sectors (8x) are the public service activities directed at particular sectors or subgroups of the community.

Coding: Two-character numeric code. The first character is reserved for the above codes; the second character is unassigned.

Program sector coding is unassigned for the institutional support program (6.0) and the independent operations program (7.0).

Program Element

The lowest level of aggregation is the program element, a collection of resources, technologies, and policies integrated through a set of activities to contribute directly to the program objective in a measurable fashion. It is normally a distinct entity, separately managed or controlled, and represents the basic unit of the Program Classification Structure.

Coding: Eight-character alpha-numeric code; last two characters recommended for campus identification. Program element codes are institutionally defined. Participating institutions should attempt to organize their program elements and associated coding structure in a manner that facilitates the transfer of current and future institutional data to the Program Classification Structure.

NOTE: In developing the program element code, institutions should make provisions to permit defining instruction program elements at the course or section level.

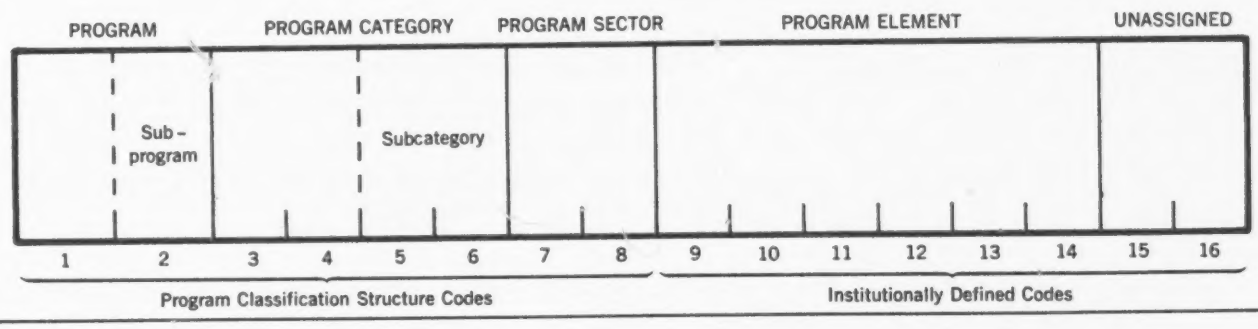
Program Measures

Associated with each program element are program measures that characterize the program element. They are the indicators of resource utilization and output associated with the activities of the program elements. Although presently undefined, the program measures are planned to reflect quantitative measures of the resources assigned or utilized, activity levels generated, groups or clients served, expenditures incurred, revenues generated, and outcomes achieved by a program element. Program measures will be designed to allow a linkage to the regular account structure in order that program elements may be identified with organizational units and the institution's chart of accounts. In addition, program measures will permit alternative aggregations of the program elements, e.g., by source of funds.

Coding

The Program Classification Structure is based on a sixteen-character code to identify each program element. Figure 2.2 displays the proposed coding scheme for the Program Classification Structure. The fields of the sixteen-character code correspond to the previously described levels of the structure. The last two characters, 15 and 16, are unassigned to allow the option of developing unique institutional reports (e.g., identifying the various campuses in a multicampus system) or may be used to expand the program element coding scheme.

Figure 2.2. Sixteen-character coding structure



The codes for the first eight characters are specified by the NCHEMS Program Classification Structure. The coding for the remaining eight characters, i.e., the program element codes, are institutionally defined in order that each institution may identify its program elements in a manner that facilitates a correspondence to the institution's program structure and the transformation of data from the institution's data system.

The Program Classification Structure is based on program elements that are separately controlled, output-producing activities established to achieve the program objectives. Although the program element concept is used essentially for planning and management purposes, data from the normal accounting system may be transformed into the Program Classification Structure format through the program elements. Figure 2.3 is a diagram of the three ways in which financial account data can relate to program elements:

a. Data will map directly from one account to one program element;

b. Data will map from more than one account into a program element; or

c. One account may split into two or more program elements.

Figure 2.3. Crossover from accounts to program elements

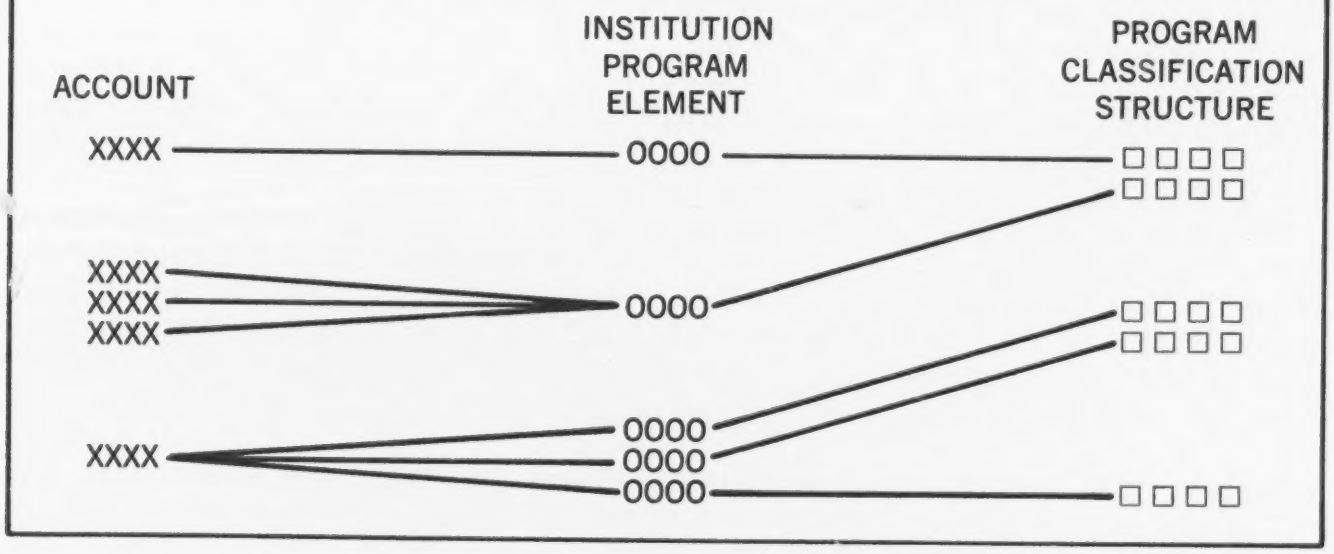


Figure 2.3 indicates a simple mapping of institution program elements to the Program Classification Structure, although the initial crossover of fund accounts to program elements may be complex. Users should observe that the Program Classification Structure does not impose an arbitrary structure upon the institution since program elements are defined by the user. The proposed

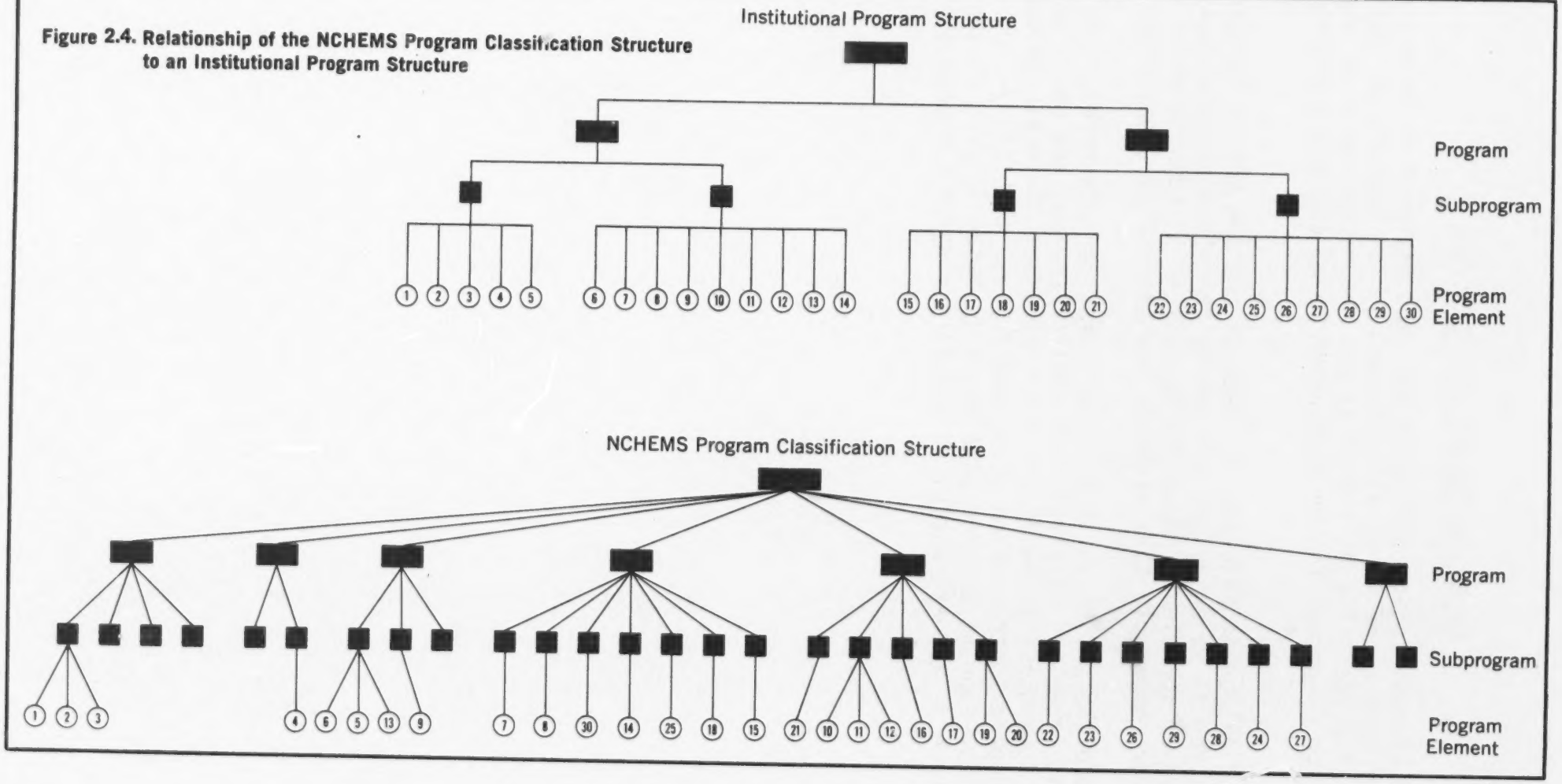
coding structure will facilitate this mapping by allowing a program element to be identified jointly with both its appropriate place in the institution's program structure and the Program Classification Structure. Thus, an institution may aggregate program elements in one manner for institutional purposes and in another manner for external purposes without in any way restructuring its fundamental accounting system or organizational structure. Figure 2.4 is a graphic representation of this relationship, showing that suitably defined program elements may be classified in alternative structures.

A sample transformation or "crosswalk" that relates typical accounts to a program structure is discussed in Cost Finding Principles and Procedures (Ziemer, et al., 1971). For the various operational uses of the Program Classification Structure, it may be necessary to assign or allocate the cost and other data within these functions to program elements and allocate the data back to the appropriate areas of the program. The structure has been designed to aid in identifying the range of the allocation for those cases where a program element logically should be distributed across programs or various categories within a program.

The coding structure has been designed to permit the entry of program elements at various levels within the structure. Normally, a program element is identified to a specific program subcategory. However, occasionally it is not appropriate to assign a program element specifically to one program subcategory, but rather to some higher level within the structure. In these cases, the coding scheme allows for zero entries in order that program elements may be included at a level of aggregation appropriate to the particular program element. *A zero entry indicates that a program element is applicable to all other program elements within the field (as indicated by the solid lines in Figure 2.2) and that for certain analytic purposes, it should be distributed among those program elements.* For example, consider a program element for the management and administration of a major organizational unit, e.g., the Dean of Summer Session. Suppose this program element is appropriately identified only with the special session instruction subprogram (1.3). For this case, the program element may be coded using 0000 for the program category code, which would permit the program element to be assigned to the subprogram level, e.g., 1.3.0000.00.xxxxxx xx. The zero entries indicate that this program element is associated with all sectors (.00.) and all program categories (.0000) within the special session instruction subprogram.

The provision for a zero entry permits program elements to be entered at the campus level, the program level, the subprogram level, or the program category level, whichever is appropriate to the specific program element. Reports may be developed to display such program elements and to list them separately from the other program elements. For various applications of the Program Classification Structure, allocation procedures may be designed in a manner that will permit distributing the cost of such higher level program elements back to the appropriate program subcategories without a loss of information related to the program element.

Figure 2.4. Relationship of the NCHEMS Program Classification Structure to an Institutional Program Structure


Institutional Program Structure
Program
Subprogram
Program Element
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
NCHEMS Program Classification Structure
Program
Subprogram
Program Element
1 2 3 4 6 5 13 9 7 8 30 14 25 18 15 21 10 11 12 16 17 19 20 22 23 26 29 28 24 27

Organization of the Structure

The Program Classification Structure has been designed to permit the aggregation of program elements in alternative ways to support various internal institutional needs. Figure 1.1 displayed the organization of the Program Classification Structure to the subprogram level and the associated codes by program.

The sections following describe the details and the coding for the programs. This coding scheme is suggested for use by institutions participating in the National Center for Higher Education Management Systems in order to provide the framework for comparable data exchange and the use of generalized models.

The names and the coding for the primary program categories, i.e., those in instruction, organized research, and public service, are based on the HEGIS Taxonomy. Appendices I and II are reprinted from the HEGIS Taxonomy, which has been adopted as the coding structure for use in primary program categories. The coding for support program categories is based in part on the HEGIS Taxonomy where it appears useful to identify program elements with disciplines.

CHAPTER III

THE PRIMARY PROGRAMS

The Program Classification Structure is divided into primary programs and support programs. The rationale for this dichotomy was discussed previously in Chapter I, but it should be mentioned again that this separation is made only to identify classifications of programs and has no reflection upon the purposes of any institution of higher education.

The primary programs are those programs that contribute directly to the major missions of higher education. For the purposes of the NCHEMS Program Classification Structure. these programs are defined as:

1.0 Instruction Program

2.0 Organized Research Program

3.0 Public Service Program

The various components of these programs are defined explicitly in order to establish a convention of aligning institutional program data in a uniform format. These conventions may be regarded as the rules for arraying data in a "standard" program classification structure format. The reader is reminded once again that such definitions do not preclude the modification of Program Classification Structure rules and conventions for internal application to management and analysis within an institution of higher education.

1.0 Instruction Program

The instruction program consists of all formal educational activities in which a student engages to earn credit toward a degree or certificate at the institution. Those program elements that have been established to provide additional opportunities for learning, but are not creditable toward degrees and certificates, should be assigned to the student service program (5.0) if the primary intent is to provide supplemental or remedial educational services for matriculated students, or to the public service program (3.0) if the primary intent is to offer teaching services for members of the community. For the purposes of the Program Classification Structure, teaching activities conducted primarily for elementary or secondary education are not considered a part of the instruction program. In general, such activities are properly considered as taking place in one of three areas, depending on the purpose of the institution in committing resources to such activities:

a. The college may operate a laboratory school in support of the primary programs; thus, it would be part of subprogram 4.5, ancillary support.

b. The college may be operating a school for the benefit of the general community; therefore, it would be part of subprogram 3.2., community service.

c. The college may be committing resources to provide pre-college instruction to its matriculated students for the purpose of preparing them to undertake a full-level college instruction program, and thus it would appropriately be classified under subprogram 5.2, supplementary education service.

The instruction program currently consists of four subprograms:

1.1 General Academic Instruction

1.2 Occupational and Vocational Instruction

1.3 Special Session Instruction

1.4 Extension Instruction (for credit)

The coding for each of the above subprograms is based on the HEGIS Taxonomy as listed in the appendices. For those cases in which a program element is not identified to an existing HEGIS discipline subcategory, the program element should be assigned to the appropriate HEGIS discipline category using an unassigned HEGIS Taxonomy code. In certain cases, it will be necessary to assign program elements to "Other Instruction" (9100), which is a miscellaneous program category appearing in each instruction subprogram. Other instruction should be used only for program elements that are appropriately assigned to the instruction program but do not fit within the specifications of the HEGIS disciplines. The program subcategories for this category are unassigned and may be coded in a manner that best accommodates the structure of the institution.

General Academic Instruction (subprogram 1.1) are those instructional program elements operating during the academic year (as defined by the institution) that are part of a formal degree or certificate curriculum and are managed by the regular academic departments. For the purposes of the Program Classification Structure, such program elements are defined to be those associated with academic offerings described by the HEGIS discipline categories 0100 through 4900, e.g., history, math, biology, English, etc. Program elements that have been established primarily to provide instruction in areas typically associated with two-year (or less) vocational certification as described by the HEGIS discipline categories 5000 through 5500 will typically be included in subprogram 1.2, Occupational and Vocational Instruction; e.g., bookkeeping, computer operation, practical nursing, construction and building, etc.

Occupational and Vocational Instruction (subprogram 1.2) includes those program elements established primarily to provide instruction in disciplines usually associated with HEGIS discipline categories 5000 through 5500. This subprogram is intended primarily for use by institutions offering two-year (or less) degree/certificate programs for vocational certification in the trades and paraprofessional areas.

Confusion may arise in cases where an academic discipline is offered primarily for instruction to vocational students, e.g., mathematics for auto mechanics. In such cases it is appropriate to identify the program element with the associated academic discipline having management responsibility for the program element and code it within the occupational and vocational instruction subprogram; e.g., 1.2.1701.xx.xxxxxx.xx, if offered by the mathematics department.

Special Session Instruction (subprogram 1.3) includes instruction program elements that offer credit toward a formal degree or certificate and are in operation during a summer session, interim session, or other period that is not in common with the institution's regular term. Institutions operate on various term bases, and some institutions may wish to segregate their instructional activities during the special sessions in order to preserve comparability with other participating institutions. This subprogram will allow the separation of such special session program elements. Coding for subprogram 1.3 includes the entire HEGIS Taxonomy 0100 through 5500.

Extension Instruction (for credit) (subprogram 1.4) includes all instructional program elements that are managed separately by an extension division (or similar agency within the institution) and are applicable toward a formal degree or certificate. Program elements in this subprogram should be identified with the appropriate discipline category in the HEGIS Taxonomy 0100 through 5500. Excluded from this subprogram are those extension program elements or similar activities that may not be credited toward formal degrees or certificates and are offered by an institution primarily as a public service; e.g., continuing education, short courses, etc.

2.0 Organized Research Program

The organized research program comprises all research-related program elements established within the institution under the terms of agreement with agencies external to the institution or separately budgeted and conducted with internal funds. A research-related program element is one that is established to undertake an investigation of a specified scope as defined by the commissioning agency to produce research outcomes that may include the creation of new knowledge, the reorganization of knowledge, and the application of knowledge. Commissioning agencies may be external sponsors, other areas of the organization, or the organizational unit itself. Included are research divisions, bureaus, institutes, and experimental stations. Externally funded educational program elements such as workshops, short courses, and training grants would normally be considered as either instruction or public service.

Organized research consists of two subprograms:

2.1 Institutes and Research Centers

2.2. Individual or Project Research

The organized research program structure is based on the HEGIS Taxonomy as listed in the appendices. Interdisciplinary program elements should be coded with the 4900 program category. Included in both of the above subprograms is the program category "Other Organized Research" (9200). This is a miscellaneous category to be used for those program elements that are not appropriately identified with the HEGIS discipline categories. The program subcategories for the other organized research category are unassigned and may be defined by the institution in a manner that best serves its particular structure.

Institutes and Research Centers (subprogram 2.1) contains all research-related program elements that are part of a formal research organization. Typically, research organizations are created to manage a number of research efforts. Program elements belonging to such semi-autonomous entities should be included within this program and classified according to the HEGIS disciplines wherever possible. In some cases, it may be preferred to classify these research organizations in relation to the general discipline category, e.g., physical sciences, rather than a specific subcategory, e.g., physics. Research organizations that cannot be identified with a specific discipline category should be assigned a code within the other organized research program category.

Individual or Project Research (subprogram 2.2) contains the research program elements that are normally managed within the academic departments. This subprogram consists of the various research-related program elements that have been created as a result of a contract, grant, or specific allocation of institutional resources to conduct a study or investigation of a specific scope. Generally, such program elements may be identified with the principal investigator and should be coded within his assigned discipline. Program elements within this subprogram are normally of a temporary nature (i.e., created for a specified period of time) as contrasted to the more permanent nature of the research organizations within the institutes and research centers subprogram. However, an institution can explicitly commit departmental resources to the creation of research outcomes on an ongoing basis as part of its educational program or policy. In such cases, the institution would appropriately establish research program elements in the various academic departments within subprogram 2.2, individual or project research.

It should be noted that academic faculty engage frequently in a variety of activities that contribute to their professional development. In the context of the Program Classification Structure, these faculty activities may contribute to the objectives of one or more programs. Such faculty activities are commonly referred to as "departmental research," which includes academic resources employed in such endeavors as faculty research, publication activity, preparation of materials for future courses, and other activities related to the professional responsibilities of faculty. The analysis of faculty activities

is separate from, but related to, the budget process and is typically conducted through separate faculty activities analyses (see, for example, Romney, 1971), because it is not the function of a program budget to analyze the activities of employees but instead to relate resources to program elements and, ultimately, to outcomes. For an individual faculty member, such activities do not usually constitute a program element but represent a class of activities including scholarly work and professional interests. Therefore, departmental research, when defined as a collection of various faculty activities, is not an appropriate category in the Program Classification Structure. If defined more narrowly as an ongoing scholarly research program element, it would, according to the objectives, be appropriately placed in subprogram 2.2.

Another class of faculty activities frequently associated with departmental research are those directed toward the development of new courses or new curricula. The explicit commitment of institutional resources to this objective should be coded within program elements under subprogram 4.7, Course and Curriculum Development.

3.0 Public Service Program

The public service program contains the program elements within the institution that produce outcomes directed toward the benefit of the community or individuals residing within the geographic service area of the institution. This program consists of three subprograms:

3.1 Community Education

3.2 Community Service

3.3 Cooperative Extension Service

Coding for the first two subprograms, 3.1 and 3.2, is based on the HEGIS Taxonomy as listed in the appendices. In addition, each of the public service subprograms contains the program category, "Other Public Service" (9300), which provides a block of unassigned program subcategories for classifying program elements that are not appropriately identified with the HEGIS discipline categories. The third subprogram, 3.3, uses coding based on the "Extension Management Information System" of the U. S. Department of Agriculture (1969).

The sector coding for the public service program includes three additional levels beyond the standard course levels. These codes have been established primarily for subprogram 3.1, community education, but may be used in the other public service subprograms where appropriate. The following sector coding is recommended for distinguishing various program elements by target clientele:

6x Individuals

7x Common Interest Groups

8x Community Sectors

9x Other

The sector "Individuals" (6x) is for general community education courses or community services that are provided for individuals within the community at large, as contrasted to specific interest groups. Examples of general community education program elements may be noncredit courses of the following nature: Law for the Laymen, Music Appreciation, Efficient Reading, etc.

Common interest groups (7x) is intended primarily for community education program elements targeted for specific professions, e.g., continuing medical education, C.P.A. review, recent advances in tax law; or specific, homogeneous populations within the community, e.g., high school students, expectant mothers.

Community sectors (8x) is to be used for well-defined geographic or political subdivisions such as particular socioeconomic classes, specific neighborhoods or communities, etc.

Community Education (subprogram 3.1) contains the program elements that are managed within the academic departments or elsewhere within the institution to provide continuing education, i.e., noncredit instructional services, to members of the community other than matriculated students. Community education is considered to be those activities conducted under program elements that have been established to provide an educational service to the various members of the community and are not part of the degree curriculum; e.g., short courses, professional review courses, etc. Excluded from community education are educational services to matriculated students such as program elements that have been established to provide preparatory, supplemental, or remedial instruction and are not part of the degree curriculum; e.g., English for foreign students, noncredit courses in study skills, tutorial courses. In those cases where preparatory instruction is required as part of the degree program, the program elements should be carried in the instruction program (1.0) at the "1x" program sector level.

Community Service (subprogram 3.2) are those program elements that have been established to provide general community services, excluding instructional activities. Community service program elements are managed either within the academic departments or elsewhere within the institution and have been established to provide general public services to the community at large or special sectors within the community. Community service is concerned with making available to the public various resources and unique capabilities that exist within the institution. Examples of community service may be conferences and institutes, general advisory services and reference bureaus, urban affairs, international affairs, radio and television, consultation, and similar activities.

Community service program elements are those for which the primary intent for establishing and maintaining the program element is to provide services that are beneficial to groups and individuals outside of the institution. It is likely that program elements will occur that contribute jointly to the public service program and one or more of the other programs, e.g., a convocation that is open to the general public. In such instances, it will be necessary for the institution to determine whether the primary intent is directed toward the public service program or, for example, the student service program, and to assign the program element accordingly. Consulting activities may be included within this subprogram by means of a pseudo-program element to represent the institutional resources committed to this type of service. Program elements that have been established primarily for the institution's student body or staff and all instructional services are excluded.

Cooperative Extension Service (subprogram 3.3) is established as a separate subprogram to accommodate the program elements that are established as the result of cooperative extension efforts between the institution and outside agencies, e.g., agriculture extension, urban extension. This subprogram is intended primarily for land-grant colleges and universities. The distinguishing feature of program elements in subprogram 3.3 is that the programmatic and fiscal control is shared by the institution with one or more governmental units. Historically, agriculture extension and increasingly certain urban extension programs represent a significant commitment of resources that are not necessarily under the control of the institution in terms of the programmatic direction of the activities. These cooperative extension programs are often a cross between independent operations and public service in that they represent a mix of resources belonging to the institution and resources under the control of an agency external to the institution.

Agriculture Extension Service program category (6600) is for program elements within the normally autonomous and self-contained subsystem of organized agriculture extension. Generally, when such an organization exists within an institution of higher education, it represents a major commitment of resources that are not uniquely under the control of the institution. Program subcategories for the agriculture extension service program category are based on the U. S. Department of Agriculture's Extension Management Information System Data Definition document (EMIS) (1969). The EMIS System defines thirteen programs that have been aggregated into four program subcategories as follows: (Numbers in parentheses correspond to the national extension element codes.)

6610 - Agriculture and Related Industries may be used for Agriculture Extension Service program elements established to provide public service for the agricultural industry and include national extension elements:

Improving farm income (01)
Marketing, utilization, distribution, and farm supply (03)
Pesticide education and emergency preparedness (10)
Forestry production and marketing (18)

6620 - Social and Economic Development may be used for Agriculture Extension Service program elements established to provide public service for social and economic development in the rural areas and includes national extension elements:

Soil and water conservation (02)
Community development (16)
Recreation, wildlife and natural beauty (17)
Resource protection and environmental improvement (50)

6630 - Quality of Living may be used for Agriculture Extension Service program elements established to improve the quality of rural life and includes national extension elements:

Food and nutrition (09)
4-H youth development (11)
Improved family living (12)

6640 - International Extension may be used for Service program elements established to provide public service related to international activities and includes national extension element:

International programs (06)

Program elements for the management of the agriculture extension service, including EMIS element number 90--program leadership and administrative support--should be entered in the program structure at the program category level (6600), as program elements that relate to all of the subcategories within the program category. Because of the varied manner in which institutions relate their program elements to the national EMIS system, the last digit of the subcategories for the agriculture extension service program category has been left unassigned. Institutions may define additional program subcategories within the coding structure in a manner that best serves the institutional purposes. A complete description of the program elements associated with each of the agriculture extension service program categories is described in the National EMIS Purpose List for FY 1971 (1969), which served as the basis for the agriculture extension service structure.

The program category Urban Extension Service (6700) is for program elements that are established under the criteria of the cooperative extension program but are intended primarily for service within the urban areas rather than rural areas. The coding within this program category is currently unassigned. Additional program categories have been reserved for future use within the cooperative extension program.

1.0 INSTRUCTION PROGRAM

1.1 GENERAL ACADEMIC INSTRUCTION SUBPROGRAM

1.1.0100 Agriculture and Natural Resources Discipline Category

1.1.0101 Agriculture, General
1.1.0102 Agronomy, Field Crops, and Crop Management
1.1.0103 Soils Science (Management and Conservation)
1.1.0104 Animal Science (Husbandry)
1.1.0105 Dairy Science (Husbandry)
1.1.0106 Poultry Science
1.1.0107 Fish, Game, and Wildlife Management
1.1.0108 Horticulture (Fruit and Vegetable Production)
1.1.0109 Ornamental Horticulture (Floriculture, Nursery Science)
1.1.0110 Agricultural and Farm Management
1.1.0111 Agricultural Economics
1.1.0112 Agricultural Business
1.1.0113 Food Science and Technology
1.1.0114 Forestry
1.1.0115 Natural Resources Management
1.1.0116 Agriculture and Forestry Technologies
1.1.0117 Range Management
1.1.0199 Other, Specify

1.1.0200 Architecture and Environmental Design Discipline Category

1.1.0201 Environmental Design, General
1.1.0202 Architecture
1.1.0203 Interior Design
1.1.0204 Landscape Architecture
1.1.0205 Urban Architecture
1.1.0206 City, Community, and Regional Planning
1.1.0299 Other, Specify

1.1.0300 Area Studies Discipline Category

1.1.0301 Asian Studies, General
1.1.0302 East Asian Studies
1.1.0303 South Asian (India, etc.) Studies
1.1.0304 Southeast Asian Studies
1.1.0305 African Studies
1.1.0306 Islamic Studies
1.1.0307 Russian and Slavic Studies
1.1.0308 Latin American Studies
1.1.0309 Middle Eastern Studies
1.1.0310 European Studies, General

. Note: Refer to the appendices for
. a complete listing of the
. HEGIS disciplines.

1.1.4900 Interdisciplinary Studies Discipline Category

1.1.4901 General Liberal Arts and Sciences
1.1.4902 Biological and Physical Sciences
1.1.4903 Humanities and Social Sciences
1.1.4904 Engineering and Other Disciplines
1.1.4999 Other, Specify

1.1.9100 Other Instruction Discipline Category

1.1.9101 Unassigned: May be used for Instruction program elements
. which are established to provide general
. academic instruction for degree credit and
. are not appropriately assigned to the HEGIS
. discipline categories as listed in the
appendices.
1.1.9199

1.0 INSTRUCTION PROGRAM (continued)

1.2 OCCUPATIONAL AND VOCATIONAL INSTRUCTION SUBPROGRAM

1.2.5000 Business and Commerce Technologies Discipline Category

1.2.5001 Business and Commerce Technologies, General
1.2.5002 Accounting Technologies
1.2.5003 Banking and Finance Technologies
1.2.5004 Marketing, Distribution, Purchasing, Business, and Industrial Management Technologies
1.2.5005 Secretarial Technologies (include Office Machines Training)
1.2.5006 Personal Service Technologies (Stewardess, Cosmetologist, etc.)
1.2.5007 Photography Technologies
1.2.5008 Communications and Broadcasting Technologies
1.2.5009 Printing and Lithography Technologies
1.2.5010 Hotel and Restaurant Management Technologies
1.2.5011 Transportation and Public Utility Technologies
1.2.5012 Applied Arts, Graphic Arts, and Fine Arts Technologies (include Advertising Design)
1.2.5099 Other, Specify

1.2.5100 Data Processing Technologies Discipline Category

1.2.5101 Data Processing Technologies, General
1.2.5102 Key Punch Operator and Input Preparation Technologies
1.2.5103 Computer Programmer Technologies
1.2.5104 Computer Operator and Peripheral Equipment Operation Technologies
1.2.5105 Data Processing Equipment Maintenance Technologies
1.2.5199 Other, Specify

1.2.5200 Health Services and Paramedical Technologies Discipline Category

. Note: Refer to the appendices for
. a complete listing of the
. HEGIS disciplines.

1.2.5500 Public Service Related Technologies Discipline Category

1.2.5501 Public Service Technologies, General
1.2.5502 Bible Study or Religion-Related Occupations
1.2.5503 Education Technologies (Teacher aide and 2-year Teacher Training Programs)
1.2.5504 Library Assistant Technologies
1.2.5505 Police, Law Enforcement, Corrections Technologies
1.2.5506 Recreations and Social Work Related Technologies
1.2.5507 Fire Control Technology
1.2.5508 Public Administration and Management Technologies
1.2.5599 Other, Specify

Note: Subprogram 1.2 may, under special circumstances, contain HEGIS Disciplines 0100 through 4900. (See page 33.)

1.2.9100 Other Instruction Discipline Category

1.2.9101 Unassigned: May be used for Instruction program
. elements which are established to provide
. occupational and vocational instruction for
. degree or certificate credit and are not appropriately assigned to the HEGIS discipline categories listed in the appendices.

1.2.9199

1.0 INSTRUCTION PROGRAM (continued)

1.3 SPECIAL SESSION INSTRUCTION SUBPROGRAM

1.3.0100 Agriculture and Natural Resources Discipline Category

1.3.0101 Agriculture, General
1.3.0102 Agronomy, Field Crops, and Crop Management
1.3.0103 Soils Science (Management and Conservation)
1.3.0104 Animal Science (Husbandry)
1.3.0105 Dairy Science (Husbandry)
1.3.0106 Poultry Science
1.3.0107 Fish, Game, and Wildlife Management
1.3.0108 Horticulture (Fruit and Vegetable Production)
1.3.0109 Ornamental Horticulture (Floriculture, Nursery Science)
1.3.0110 Agricultural and Farm Management
1.3.0111 Agricultural Economics
1.3.0112 Agricultural Business
1.3.0113 Food Science and Technology
1.3.0114 Forestry
1.3.0115 Natural Resources Management
1.3.0116 Agriculture and Forestry Technologies
1.3.0117 Range Management
1.3.0199 Other, Specify

1.3.0200 Architecture and Environmental Design Discipline Category

1.3.0201 Environmental Design, General
1.3.0202 Architecture
1.3.0203 Interior Design
1.3.0204 Landscape Architecture
1.3.0205 Urban Architecture
1.3.0206 City, Community, and Regional Planning
1.3.0299 Other, Specify

1.3.0300 Area Studies Discipline Category

. Note: Refer to the appendices for
. a complete listing of the
. HEGIS disciplines.

1.3.5500 Public Service Related Technologies Discipline Category

1.3.5501 Public Service Technologies, General
1.3.5502 Bible Study or Religion-Related Occupations
1.3.5503 Education Technologies (Teacher Aide and 2-year Teacher Training Programs)
1.3.5504 Library Assistant Technologies
1.3.5505 Police, Law Enforcement, Corrections Technologies
1.3.5506 Recreation and Social Work Related Technologies
1.3.5507 Fire Control Technology
1.3.5508 Public Administration and Management Technologies
1.3.5599 Other, Specify

1.3.9100 Other Instruction Discipline Category

1.3.9101 Unassigned: May be used for Instruction program elements
. which are established to provide special
. session instruction for degree credit and
. are not appropriately assigned to the HEGIS
. discipline categories listed in the
. appendices.

1.3.9199

1.0 INSTRUCTION PROGRAM (continued)

1.4 EXTENSION-INSTRUCTION (for credit) SUBPROGRAM

1.4.0100 Agriculture and Natural Resources Discipline Category

1.4.0101 Agriculture, General
1.4.0102 Agronomy, Field Crops, and Crop Management
1.4.0103 Soils Science (Management and Conservation)
1.4.0104 Animal Science (Husbandry)
1.4.0105 Dairy Science (Husbandry)
1.4.0106 Poultry Science
1.4.0107 Fish, Game, and Wildlife Management
1.4.0108 Horticulture (Fruit and Vegetable Production)
1.4.0109 Ornamental Horticulture (Floriculture, Nursery Science)
1.4.0110 Agricultural and Farm Management
1.4.0111 Agricultural Economics
1.4.0112 Agricultural Business
1.4.0113 Food Science and Technology
1.4.0114 Forestry
1.4.0115 Natural Resources Management
1.4.0116 Agriculture and Forestry Technologies
1.4.0117 Range Management
1.4.0199 Other, Specify

1.4.0200 Architecture and Environmental Design Discipline Category

1.4.0201 Environmental Design, General
1.4.0202 Architecture
1.4.0203 Interior Design
1.4.0204 Landscape Architecture
1.4.0205 Urban Architecture
1.4.0206 City, Community, and Regional Planning
1.4.0299 Other, Specify

1.4.0300 Area Studies Discipline Category

. Note: Refer to the appendices for
. a complete listing of the
. HEGIS disciplines.

1.4.5500 Public Service Related Technologies Discipline Category

1.4.5501 Public Service Technologies, General
1.4.5502 Bible Study or Religion-Related Occupations
1.4.5503 Education Technologies (Teacher Aide and 2-year Teacher Training Programs)
1.4.5504 Library Assistant Technologies
1.4.5505 Police, Law Enforcement, Corrections Technologies
1.4.5506 Recreation and Social Work Related Technologies
1.4.5507 Fire Control Technology
1.4.5508 Public Administration and Management Technologies
1.4.5599 Other, Specify

1.4.9100 Other Instruction Discipline Category

1.4.9101 Unassigned: May be used for Instruction program
. elements which are established to provide
. extension instruction for degree credit and
. are not appropriately assigned to the HEGIS
. discipline categories listed in the
appendices.

1.4.9199

2.0 ORGANIZED RESEARCH PROGRAM

2.1 INSTITUTES AND RESEARCH CENTERS SUBPROGRAM

2.1.0100 Agriculture and Natural Resources Discipline Category

2.1.0101 Agriculture, General
2.1.0102 Agronomy, Field Crops, and Crop Management
2.1.0103 Soils Science (Management and Conservation)
2.1.0104 Animal Science (Husbandry)
2.1.0105 Dairy Science (Husbandry)
2.1.0106 Poultry Science
2.1.0107 Fish, Game, and Wildlife Management
2.1.0108 Horticulture (Fruit and Vegetable Production)
2.1.0109 Ornamental Horticulture (Floriculture, Nursery Science)
2.1.0110 Agricultural and Farm Management
2.1.0111 Agricultural Economics
2.1.0112 Agricultural Business
2.1.0113 Food Science and Technology
2.1.0114 Forestry
2.1.0115 Natural Resources Management
2.1.0116 Agriculture and Forestry Technologies
2.1.0117 Range Management
2.1.0199 Other, Specify

2.1.0200 Architecture and Environmental Design Discipline Category

2.1.0201 Environmental Design, General
2.1.0202 Architecture
2.1.0203 Interior Design
2.1.0204 Landscape Architecture
2.1.0205 Urban Architecture
2.1.0206 City, Community, and Regional Planning
2.1.0299 Other, Specify

2.1.0300 Area Studies Discipline Category

. Note: Refer to the appendices for
. a complete listing of the
. HEGIS disciplines.

2.1.5500 Public Service Related Technologies Discipline Category

2.1.5501 Public Service Technologies, General
2.1.5502 Bible Study or Religion-Related Occupations
2.1.5503 Education Technologies (Teacher Aide and 2-year Teacher Training Programs)
2.1.5504 Library Assistant Technologies
2.1.5505 Police, Law Enforcement, Corrections Technologies
2.1.5506 Recreation and Social Work Related Technologies
2.1.5507 Fire Control Technology
2.1.5508 Public Administration and Management Technologies
2.1.5509 Other, Specify

2.1.9200 Other Organized Research Discipline Category

2.1.9201 Unassigned: May be used for Organized Research
. institutes and centers unique to the
. institution or otherwise not appropriately
. identified to the HEGIS disciplines; e.g.,
interdisciplinary centers.
2.1.9299

2.0 ORGANIZED RESEARCH PROGRAM (continued)

2.2 INDIVIDUAL OR PROJECT RESEARCH SUBPROGRAM

2.2.0100 Agriculture and Natural Resources Discipline Category

2.2.0101 Agriculture, General
2.2.0102 Agronomy, Field Crops, and Crop Management
2.2.0103 Soils Science (Management and Conservation)
2.2.0104 Animal Science (Husbandry)
2.2.0105 Dairy Science (Husbandry)
2.2.0106 Poultry Science
2.2.0107 Fish, Game, and Wildlife Management
2.2.0108 Horticulture (Fruit and Vegetable Production)
2.2.0109 Ornamental Horticulture (Floriculture, Nursery Science)
2.2.0110 Agricultural and Farm Management
2.2.0111 Agricultural Economics
2.2.0112 Agricultural Business
2.2.0113 Food Science and Technology
2.2.0114 Forestry
2.2.0115 Natural Resources Management
2.2.0116 Agriculture and Forestry Technologies
2.2.0117 Range Management
2.2.0199 Other, Specify

2.2.0200 Architecture and Environmental Design Discipline Category

2.2.0201 Environmental Design, General
2.2.0202 Architecture
2.2.0203 Interior Design
2.2.0204 Landscape Architecture
2.2.0205 Urban Architecture
2.2.0206 City, Community, and Regional Planning
2.2.0299 Other, Specify

2.2.0300 Area Studies Discipline Category

. Note: Refer to the appendices
. for a complete listing of
. the HEGIS disciplines.

2.2.5500 Public Service Related Technologies Discipline Category

2.2.5501 Public Service Technologies, General
2.2.5502 Bible Study or Religion-Related Occupations
2.2.5503 Education Technologies (Teacher Aide and 2-year Teacher Training Programs)
2.2.5504 Library Assistant Technologies
2.2.5505 Police, Law Enforcement, Corrections Technologies
2.2.5506 Recreation and Social Work Related Technologies
2.2.5507 Fire Control Technology
2.2.5508 Public Administration and Management Technologies
2.2.5599 Other, Specify

2.2.9200 Other Organized Research Discipline Category

2.2.9201 Unassigned: May be used for individual or project
. Organized Research program elements
. which are not appropriately identified
. to the HEGIS discipline categories listed
in the appendices.

2.2.9299

3.0 PUBLIC SERVICE PROGRAM

3.1 COMMUNITY EDUCATION SUBPROGRAM

3.1.0100 Agriculture and Natural Resources Discipline Category

3.1.0101 Agriculture, General
3.1.0102 Agronomy, Field Crops, and Crop Management
3.1.0103 Soils Science (Management and Conservation)
3.1.0104 Animal Science (Husbandry)
3.1.0105 Dairy Science (Husbandry)
3.1.0106 Poultry Science
3.1.0107 Fish, Game, and Wildlife Management
3.1.0108 Horticulture (Fruit and Vegetable Production)
3.1.0109 Ornamental Horticulture (Floriculture, Nursery Science)
3.1.0110 Agricultural and Farm Management
3.1.0111 Agricultural Economics
3.1.0112 Agricultural Business
3.1.0113 Food Science and Technology
3.1.0114 Forestry
3.1.0115 Natural Resources Management
3.1.0116 Agriculture and Forestry Technologies
3.1.0117 Range Management
3.1.0199 Other, Specify

3.1.0200 Architecture and Environmental Design Discipline Category

3.1.0201 Environmental Design, General
3.1.0202 Architecture
3.1.0203 Interior Design
3.1.0204 Landscape Architecture
3.1.0205 Urban Architecture
3.1.0206 City, Community, and Regional Planning
3.1.0299 Other, Specify

3.1.0300 Area Studies Discipline Category

. Note: Refer to the appendices for
. a complete listing of the
. HEGIS disciplines.

3.1.5500 Public Service Related Technologies Discipline Category

3.1.5501 Public Service Technologies, General
3.1.5502 Bible Study or Religion-Related Occupations
3.1.5503 Education Technologies (Teacher Aide and 2-year Teacher Training Programs)
3.1.5504 Library Assistant Technologies
3.1.5505 Police, Law Enforcement, Corrections Technologies
3.1.5506 Recreation and Social Work Related Technologies
3.1.5507 Fire Control Technology
3.1.5508 Public Administration and Management Technologies
3.1.5599 Other, Specify

3.1.9300 Other Public Service Discipline Category

3.1.9301 Unassigned: May be used for Public Service program
. elements which have been established to
. provide noncredit community educational
. services and are not appropriately
assigned to the HEGIS categories listed
in the appendices.
3.1.9399

3.0 PUBLIC SERVICE PROGRAM (continued)

3.2 COMMUNITY SERVICE SUBPROGRAM

3.2.0100 Agriculture and Natural Resources Discipline Category

3.2.0101 Agriculture, General
3.2.0102 Agronomy, Field Crops, and Crop Management
3.2.0103 Soils Science (Management and Conservation)
3.2.0104 Animal Science (Husbandry)
3.2.0105 Dairy Science (Husbandry)
3.2.0106 Poultry Science
3.2.0107 Fish, Game, and Wildlife Management
3.2.0108 Horticulture (Fruit and Vegetable Production)
3.2.0109 Ornamental Horticulture (Floriculture, Nursery Science)
3.2.0110 Agricultural and Farm Management
3.2.0111 Agricultural Economics
3.2.0112 Agricultural Business
3.2.0113 Food Science and Technology
3.2.0114 Forestry
3.2.0115 Natural Resources Management
3.2.0116 Agriculture and Forestry Technologies
3.2.0117 Range Management
3.2.0199 Other, Specify

3.2.0200 Architecture and Environmental Design Discipline Category

3.2.0201 Environmental Design, General
3.2.0202 Architecture
3.2.0203 Interior Design
3.2.0204 Landscape Architecture
3.2.0205 Urban Architecture
3.2.0206 City, Community, and Regional Planning
3.2.0299 Other, Specify

3.2.0300 Area Studies Discipline Category

. Note: Refer to the appendices for
. a complete listing of the
. HEGIS disciplines.

3.2.5500 Public Service Related Technologies Discipline Category

3.2.5501 Public Service Technologies, General
3.2.5502 Bible Study or Religion-Related Occupations
3.2.5503 Education Technologies (Teacher Aide and 2-year Teacher Training Programs)
3.2.5504 Library Assistant Technologies
3.2.5505 Police, Law Enforcement, Corrections Technologies
3.2.5506 Recreation and Social Work Related Technologies
3.2.5507 Fire Control Technology
3.2.5508 Public Administration and Management Technologies
3.2.5599 Other, Specify

3.2.9300 Other Public Service Discipline Category

3.2.9301 Unassigned: May be used for Public Service program
. elements which have been established
. to provide general community service
. and are not appropriately assigned to
3.2.9399 the HEGIS discipline categories listed in the appendices.

3.0 PUBLIC SERVICE PROGRAM (continued)

3.3. COOPERATIVE EXTENSION SERVICE SUBPROGRAM

3.3.6600 Agriculture Extension Service Program Category

3.3.6610 Agriculture and Related Industries
3.3.6620 Social and Economic Development
3.3.6630 Quality of Living
3.3.6640 International Extension
3.3.6650 Unassigned: May be used for Agriculture Extension
3.3.6660 Service program elements not appropriately
3.3.6670 assigned to the above program subcategories.
3.3.6680
3.3.6690

3.3.6700 Urban Extension Service Program Category

3.3.6710 Unassigned: May be used for Urban Extension
. Service program elements established
. to provide public service under a
. cooperative urban extension program.

3.3.6790

3.3.6800 Reserved for future use

3.3.6900 Reserved for future use

3.3.9300 Other Public Service Program Category

3.3.9301 Unassigned: May be used for Cooperative Extension
. Service program elements established
. to provide public service which are
. not appropriately assigned to the
above program categories.

3.3.9399

CHAPTER IV

THE SUPPORT PROGRAMS

The support programs are those programs that are organized to provide direct support to the primary programs or to supplement the mission of the primary programs. For the purposes of the NCHEMS Program Classification Structure, the support programs are defined to be:

4.0 Academic Support Program

5.0 Student Service Program

6.0 Institutional Support Program

7.0 Independent Operations Program

4.0 Academic Support Program

The academic support program contains those program elements that support the primary programs through the retention, preservation, and display of materials or provide services that directly assist the academic functions of the institution. Within the academic support program are seven subprograms:

4.1 Libraries

4.2 Museums and Galleries

4.3 Audio/Visual Services

4.4 Computing Support

4.5 Ancillary Support

4.6 Academic Administration and Personnel Development

4.7 Course and Curriculum Development

The program structure for the academic support program is based in part on the HEGIS discipline categories as listed in the appendices. The coding structure for this program is designed to permit the classification of program elements by HEGIS discipline, by function, or by combination thereof. This coding scheme uses the HEGIS discipline categories for the first two characters of the four-character category code and a functional code for the subcategory. The second character of the functional subcategory code is currently unassigned and may be used for further disaggregation of the functional operations. In addition, the 0000 program category is explicitly used in this program to identify program elements that provide service to all disciplines except those that have specific units providing service. For

example, a school may have one central library, coded 4.1.00xx, and a law library, which would be coded 4.1.14xx. The various program elements of the libraries may be coded to a functional level by assigning them to the appropriate subcategory; e.g., the directors' offices for the central library and the law library would be assigned to 4.1.0000, and 4.1.1400, respectively. The bindery for each would be assigned to 4.1.0050, and 4.1.1450, respectively. The combined discipline and functional coding is used explicitly in subprograms 4.1, 4.2, 4.3, and 4.4. The use of the functional coding is optional in subprogram 4.5 and may be defined in a manner that best suits the needs of the institution. It is recommended that the four-character HEGIS code be used in subprograms 4.6 and 4.7 in order to relate the program elements directly to the academic units.

Each academic support subprogram contains the program category, "Other Academic Support" (9400), which has been established to identify those program elements that are not central to the subprogram nor appropriately assigned to the HEGIS discipline categories. Program subcategory codes within the 9400 program category are unassigned and may be defined in a manner that best serves the structure of the institution. Note that program elements that are central to the subprogram should not be included within this category but should be entered at the subprogram level using zeros in the program category field to indicate the central nature of the program element; e.g., an institution has a single library serving all sectors of the institution.

The program sector codes may be used within the academic support program to indicate the level of program where the program element is appropriately identified to the course level, e.g., a graduate library.

Libraries (subprogram 4.1) consists of all activities that directly support the operation of a cataloged or otherwise classified collection of published material. Program categories within the library subprogram will normally be separate library entities such as the law library, the engineering library, etc.

The program elements of a library may be assigned on a functional basis using the subcategory coding. Program elements that are central to the operation, typically the administrative unit (e.g., the director's office), should be assigned using xx00. The subcategory General Support Operations (xx50) includes the various program elements that are support functions to the library, e.g., the bindery. General Production Services (subcategory xx60) includes the program elements that provide the services that directly contribute toward achieving the objectives of the library, e.g., circulation.

Museums and Galleries (subprogram 4.2) includes all program elements established to provide services related to the collection, preservation, and exhibition of historical materials, art objects, scientific displays, etc. Other program elements that may exist for the purpose of collection, preservation, and exhibition should be included within this subprogram, e.g., an arboretum. Libraries are excluded.

The program elements of a museum or gallery may be assigned on a functional basis using the subcategory coding. Program elements that are central to the operation, typically the administrative unit (e.g., the director's office), should be assigned using xx00. The subcategory General Support Operations (xx50) includes the various program elements that are support functions to a museum or gallery, e.g., shipping and receiving. General Production Services (subcategory xx60) includes the program elements that provide the services that directly contribute toward achieving the objectives of the museum or gallery, e.g., displays and exhibits.

Audio/Visual Services (subprogram 4.3) is all program elements associated with providing audio and/or visual materials or media services to support the primary programs. Program elements are normally organizational units established to provide audio/visual service to a particular sector of the institution. Wherever appropriate, the program elements may be classified according to the HEGIS Taxonomy.

The program elements of audio/visual services may be assigned on a functional basis using the subcategory coding. Program elements that are central to the operation, typically the administrative unit (e.g., the director's office), should be assigned using xx00. The subcategory General Support Operations (xx50) includes the various program elements that are support functions to audio/visual services; e.g., acquisitions, billing, cataloging. General Production Services (subcategory xx60) includes the program elements that provide the services that directly contribute toward achieving the objectives of the audio/visual unit, e.g., loan and rental services, art services, audio services.

Care should be exercised in discriminating between the establishment of program elements to provide the audio/visual services for the primary programs and program elements that use audio/visual technology as part of the instructional process. An example may be a language lab that is part of the degree curriculum and should be listed within the instruction program. However, a separate program element may be established to service the audio equipment within the language lab in addition to other audio equipment throughout the institution. If the service function is an integral part of the language lab, it would, of course, be part of that program element; however, if it exists separately from the language lab and provides such services across the institution, it should be carried within the audio/visual subprogram. Other examples include "dial access" centers, learning resource centers, and closed circuit television courses. Dial access centers and similar learning resource centers

normally would be considered substitutes for library-related services and should be carried within the audio/visual services subprogram. Closed circuit television courses may be identified with a course program element and should be included as part of the program element. The facilities, equipment, and personnel associated with these functions would not be included within the audio/visual service subprogram unless they are providing a general service to multiple programs, as opposed to being an integral part of program elements within separate programs.

Computing Support (subprogram 4.4) contains those program elements that have been established to provide computing support to the primary programs. Excluded from this subprogram is administrative data processing, which is included as part of the institutional support program (6.0). In the case of a centralized center serving both academic and administrative needs, it is recommended that the institution attempt to distinguish between the resources required for supporting the administrative computing activities and those required for academic computer support activities. Computer-assisted instruction should be handled in the same manner as closed circuit television; i.e., it may be identified with a course program element and should be carried within that program element. Program categories within computing support are defined in the same manner as libraries, i.e., separately managed entities such as the engineering computer center.

Program elements for academic computing support may be assigned on a functional basis using the subcategory coding. Program elements that are central to the computer organization (e.g., the director's office) should be assigned using xx00. The subcategory Systems Maintenance and Development (xx50) includes the program elements for the maintenance and development of internal hardware and software systems. User-oriented program elements should be assigned to Systems Analysis and Programming (subcategory xx60). The program elements concerned with providing machine capability for users are assigned to the Computer Operations subcategory (xx70). Data Preparation (subcategory xx80) is for program elements associated with keypunching and similar operations.

Ancillary Support (subprogram 4.5) is program elements that provide support services to the primary programs and are not appropriately classified within the previous subprograms. Such ancillary support activities, when they exist, normally provide joint services to the instruction, organized research, and public service programs. Examples of ancillary support include teaching hospitals, demonstration schools, and such special functions as a glass blowing shop. Teaching hospitals should be assigned to the health professions discipline category (1200), demonstration schools to education (0800). A special shop should be identified with the discipline category that it serves, if appropriate. Otherwise, include such program elements under 4.5.9400. The subcategory coding in ancillary support is unassigned and may be used to identify collections of program elements in a manner that best serves the needs of the institution.

Academic Administration and Personnel Development (subprogram 4.6) contains the program elements that provide administrative support and management direction for the primary programs. The intent of this subprogram is to provide a well-defined identification of the management function in the primary programs. It is general practice in program budgeting to have the management and administrative program elements identified exclusively with the appropriate program at a level in the structure indicative of the responsibility. However, in higher education the management function for the primary programs is typically responsible for the discipline or department program elements in instruction, organized research, and public service, e.g., the academic department. For this reason, an exception has been made to classify all academic administration (i.e., deans' and department offices) within a single subprogram.

Program elements in subprogram 4.6 typically include such resources as the department chairman, associated support staff, and such departmental administrative expense items as recruiting and support services (e.g., copying and mailing). In addition, various activities related to personnel development may be identified separately as a pseudo-program element under 4.6. This includes the commitment of resources for sabbaticals, departmental retreats, and conferences. Faculty participation on departmental committees represents a commitment of institutional resources to central management of the department and would be an appropriate item to identify in this area. Faculty participation in institutional committees should be assigned to program elements in subprogram 6.1, specifically in 6.1.8120.

The coding for this subprogram is based on the HEGIS Taxonomy in order to align joint management functions with their respective operations in the primary programs. Central academic administrative functions that relate to all disciplines, such as the office of the graduate school dean, should be coded using 0000 as the discipline code. Under certain circumstances, the program sector code may be used to distinguish appropriate levels, e.g., dean of the graduate school (4.6.0000.50). In some cases, the management and administrative program elements for collective disciplines or departments will be accommodated by the HEGIS Taxonomy coding using the discipline category level; e.g., dean of the law school, (4.6.1400), or dean of engineering., (4.6.0900). Often, however, the administration of multiple-disciplines or departments will not equate to the hierarchy of the HEGIS Taxonomy (e.g., dean of liberal arts) and must be identified separately from HEGIS coding. In such cases, the institution may use 4.6.94xx to identify the program elements for administrative functions not appropriately identified with the HEGIS discipline categories.

Course and Curriculum Development (subprogram 4.7) is a subprogram that identifies those program elements established to accomplish the planning and developmental activities for future (i.e., subsequent to the current budget period) program elements in the primary programs. The intent of this subprogram is to separate initially from the current operational aspects of

the instruction program (and other primary programs) those activities that may result in instructional offerings at some point beyond the current budget period. This subprogram may be thought of as reflecting investment costs for future instruction program elements. The manner in which such investment cost is attributed to the primary programs is the subject of a separate study (Ziemer, et al., 1971). For the present, it is recommended that program elements established for the purposes of new course and curriculum development be identified separately from the instruction program. Program elements for this subprogram will typically involve departmental curriculum committees, explicit faculty assignments for course development, and investments associated with the development of prerecorded course material.

Coding for this subprogram is based on the HEGIS Taxonomy in order to relate the program elements to the appropriate disciplines. Centrally oriented program elements that relate to all disciplines (e.g., a campus curriculum committee) should be assigned to the 0000 program category. Use 4.7.9400 for those cases in which the program element is not appropriately assigned to the HEGIS discipline categories.

5.0 Student Service Program

The student service program comprises all program elements related to the institution's student body, excluding the degree-related activities and student records. Within the student service program are the following five subprograms:

5.1 Social and Cultural Development

5.2 Supplementary Educational Service

5.3 Counseling and Career Guidance

5.4 Financial Aid

5.5 Student Support

The coding design for subprograms 5.2, 5.3, and 5.4 is based on the combined discipline category and functional subcategory scheme described previously for program 4.0, academic support. With the exception of program category 7200, the last character of the subcategory code is unassigned for all program categories in the student service program. Central units that relate to program categories within the subprogram should be coded at the subprogram level; e.g., a central supplementary educational service bureau is coded 00xx. Functional operations within such central units may use the functional subcategory codes; e.g., tutorials within the central bureau are coded 0050. Administrative program elements that relate to the entire program category are assigned a functional code of xx00; e.g., director's office for engineering financial aid is coded 0900.

Each Student Service subprogram contains the program category, "Other Student Service" (9500), which may be used for classifying those program elements that are appropriately assigned to the subprogram but do not fit the specifications of program categories within the subprogram. Program subcategory coding for "Other Student Service" is unassigned in order that institutions may structure the coding in a manner that best serves institutional needs. Program elements that are central to the subprogram should not be included within this category, e.g., a single placement bureau that serves the entire campus. Such program elements should be entered at the subprogram level in the manner described above.

Program sector codes may be used within the student service program to indicate program elements that are appropriately identified to the course level, e.g., lower division counseling.

The institutional coding of program elements, particularly in the student service program, should be designed to enable the aggregation of related program elements across Program Classification Structure subprograms. For example, a reasonable alternative to the structure is to consider the elements related to foreign student services as a separate foreign student subprogram. Such an alternative program definition would require extracting the appropriate program elements from subprograms 5.1, 5.2, 5.5, and possibly 5.3 and 5.4. Such alternative aggregations must be accommodated in the institutionally defined program element coding.

Social and Cultural Development (subprogram 5.1) is those program elements that have been established to provide for the student's social and cultural development outside of the degree curriculum. This subprogram contains two program categories: student development (7100) and intercollegiate athletics (7200).

The program category Student Development (7100) consists of the program elements established to provide for the social and physical development of the student outside the context of the formal academic program. The Student Activities subcategory (7110) includes the program elements that are primarily supported and controlled by the student body, including student associations, student newspapers, dances, affairs, etc. Cultural Events (subcategory 7120) includes those program elements outside of the curriculum program that have been established to expand the educational experience, e.g., convocations, special conferences, lectures, etc. Student Organizations (subcategory 7130) would represent those program elements established to support the various student clubs, fraternities, and special interest groups such as glee club, debate team, etc. Recreation (subcategory 7140) includes the program elements established to provide recreational opportunities for the general student body, e.g., swimming pool, golf course, bowling alleys, etc. Excluded from the recreation subcategory are intercollegiate athletics, intramural programs, and physical education curriculum activities. Intramural Athletics (subcategory 7150) includes the program elements established to support an intramural program that involves formal participation by members of the student body.

Included within this subprogram is the program category Intercollegiate Athletics (7200), which classifies program elements by the intercollegiate sport. It is assumed that the primary intent of intercollegiate athletics is to enhance the student's development.

Supplementary Educational Service (subprogram 5.2) includes all program elements that have been established primarily to provide matriculated students with supplemental instruction outside of the normal academic program. The program elements within this subprogram should be classified according to the HEGIS discipline categories as listed in the appendices; however, it may frequently be the case that such supplemental instruction is not directly identified by the HEGIS Taxonomy and should be coded in program category 9500.

Generally, program elements within the subprogram are established to provide remedial educational service as contrasted to instructional program elements that are a part of the degree curriculum. Noncredit courses or their equivalents (e.g., examinations) that are part of the curricular requirements should be included within the instruction program and indicated as preparatory within the program sector field.

The subcategory coding provides a functional assignment for the program elements in this subprogram. The subcategory Tutorials (xx50) is for program elements that are organized to provide individual tutorial assistance to matriculated students in a specified discipline, e.g., statistics, chemistry. Such program elements are usually established to provide assistance to students enrolled in courses offered by the academic discipline. Compensatory Training (xx60) is program elements established to provide matriculated students with training sufficient to enable them to achieve minimum course entrance requirements, e.g., English for foreign students. Short Courses (xx70) contains those program elements that are ancillary to the curriculum (noncredit) and are offered to the students for the purpose of obtaining or improving a skill; e.g., speed reading, FORTRAN programming. The subcategory Cooperative Student Learning (xx80) is for those program elements that represent noncurricular educational experiences organized and operated outside of the regular academic offerings, e.g., the free university.

Counseling and Career Guidance (subprogram 5.3) contains program elements established to provide counseling services, career guidance, and placement services for the student body. Excluded from this subprogram is informal academic counseling provided by the faculty in relation to course assignments. In those cases where counseling or career guidance represents a portion of the faculty assignment, a pseudo-program element may be used to identify the institutional resources committed to this subprogram. Included in this subprogram are placement bureaus or similar program elements. Coding is based on the HEGIS discipline categories and functional subcategories.

The subcategory Student Personnel Counseling (xx50) includes all activities related to student personnel, including personal guidance and disciplinary counseling. Career Guidance Service (xx60) is primarily vocational testing and vocational counseling, including academic program counseling. Placement Service (xx70) is those program elements established to aid students in obtaining employment upon leaving the institution. Excluded are student employment services that provide part-time work opportunities for matriculated students while they are enrolled in school. In some cases a program element may relate jointly to more than one subcategory, e.g., the office of career guidance and placement. In such cases the institution should attempt to determine the major function or primary intent of the program element and assign it accordingly or explicitly separate the operation into two or more program elements.

Financial Aid (subprogram 5.4) consists of program elements established to provide financial aid services and assistance to students. Coding for this subprogram is based on the HEGIS discipline categories listed in the appendices. As in the counseling and career guidance subprogram, the coding structure provides for program elements to be assigned to functional subcategories.

The subcategory Financial Analysis and Counseling (xx50) contains the program elements that provide the analysis of financial need and financial counseling services to the student. Work-Study and Student Employment (xx60) are the program elements that provide employment services to matriculated students for typically part-time work while they are enrolled in the institution. Excluded are placement services for students leaving the institution. Scholarships, Grants, and Loans (xx70) are the program elements that administer the disbursement of the various scholarships, grants, and loans. It should be noted that the resources of the program elements in subcategory xx70 reflect only cost of operating the program elements and not the amount of financial aid disbursed to students. The actual financial aid dollars should be carried as activity indicators for the program elements. The subcategory Records and Collections (xx80) is for program elements established to maintain the financial aid records and collect the repayments of student loans.

For many small financial aid operations, a single program element may be responsible for all of the above functions. In such cases the program element should be coded at the program category level, e.g., xx00.

Student Support (subprogram 5.5) contains elements established within the institution to provide convenience services to the student body or services to special student groups. For many institutions, it will often be difficult to discriminate between convenience services provided for the benefit of students and those provided for faculty and staff, e.g., a central cafeteria for both. In such instances, the program element will typically be identified to the student support subprogram unless the primary intent is clearly to provide services for the faculty and staff.

The program category Supporting Service (7300) consists of program subcategories related to student housing, health, and other convenience services which are substitutes for similar services normally available within the community. Food Services (subcategory 7310) are program elements such as the cafeteria, snack bar, food and drink vending machine operations, etc. Included in food services are dining halls associated with the dormitories, i.e., exclusively for the use of those students living in the dormitory. Health Services (subcategory 7320) are the various program elements established to provide medical services, including dental and psychiatric care. Housing Services (subcategory 7330) includes the program elements associated with the dormitories and housing office. Retail Services and Concessions (subcategory 7340) are those program elements created to provide retail services (excluding food services) to the students in such areas as the book store, barber shop, etc.

The Special Student Service (7400) program category contains the program elements that have been established to provide various services to special groups of students. Veterans (subcategory 7410) includes program elements established to provide information services and processing of forms related to veterans' affairs. Foreign Students (subcategory 7420) includes program elements established within the institution to provide special services to foreign students (e.g., foreign student office) but excluding special, remedial, or supplemental educational services. The program subcategory Disadvantaged (7430) will include those elements created to handle special problems associated with disadvantaged students, excluding financial aid services and supplemental educational services. Physically Handicapped (subcategory 7440) contains program elements established to provide services for the physically handicapped, exclusive of health care.

6.0 Institutional Support Program

The institutional support program consists of those activities within the institution that provide campuswide support to the other programs. These program elements have been classified within the following seven subprograms:

6.1 Executive Management

6.2 Fiscal Operations

6.3 General Administrative Services

6.4 Logistical Services

6.5 Physical Plant Operations

6.6 Faculty and Staff Services

6.7 Community Relations

Excluding the Physical Plant Operations subprogram (6.5) and Faculty and Staff Services subprogram (6.6), each of the institutional support subprograms classifies the program elements within either the Core Operations program category (8100), or the Functional Operations program category (8200). The purpose of this distinction is to discriminate between those program elements that typically are not influenced by program changes and those program elements that tend to vary as a function of staff, students, or programs. This distinction between core operations and functional operations will be useful for modeling and analysis, particularly for determining allocation procedures and developing unit cost data. Moreover, it is a distinction that institutions should find helpful for budget and planning analysis when attempting to identify the institutional support program elements that may be affected by major programmatic changes in the other programs. The extent of such functional relationships between support activities and various program activities will vary from one institution to another; however, the distinction has been drawn on the basis of program elements that tend to be subject to such changes.

Because of the diverse nature of institutional support programs in higher education, the listing of the program subcategories contains examples of the program elements that properly should be classified within the program subcategory. Each of the program categories within the institutional support program contains a block of unassigned numbers that may be used for any additional program subcategories that are appropriately classified within the program category. In almost all cases, the last character of the subcategory code is unassigned and may be used to expand the subcategory coding. In addition, each subprogram contains the program category, "Other Institutional Support" (9600), to be used for program elements that exist within the subprogram but are not appropriately assigned to the program categories listed within the subprogram. As with the other programs within the Program Classification Structure, the classification of program elements within the institutional support program should be based on the concept of primary intent, i.e., the primary purpose for establishing and maintaining the program element.

Executive Management (subprogram 6.1) consists of all central executive-level program elements and other program elements concerned with the management and long-range planning of the entire institution, as contrasted to any one program within the institution. Included within this subprogram are such central operations as legal services and executive direction, which consists of the governing board, the chief executive officer, and the senior executive officers (e.g., the vice-presidents). Planning and Programming (subcategory 8120) are those central operations related to the management and planning for the institution, including analytical studies, institutional research, long-range planning, etc.

Fiscal Operations (subprogram 6.2) includes those central operations related to fiscal control, investments, and functional program elements related to the fiscal operations of the institution.

General Administrative Services (subprogram 6.3) includes program elements that provide central administrative services to the institutional support program (e.g., administrative data processing) and functional program elements related to student records and staff personnel.

Logistical Services (subprogram 6.4) contains program elements that provide procurement services, supply and maintenance of provisions, and the orderly movement of support materials for the campus operation. Included within logistical services are central program elements related to the environmental health and safety of the staff and students.

Physical Plant Operations (subprogram 6.5) are those program elements established to provide services related to the campus grounds and facilities. The Maintenance Operations program category (8300) includes program elements related to maintaining the existing grounds and facilities. Included within the Maintenance Operations program category are those program elements that have been established to provide institutionally operated utility services, e.g., a campus heating plant. The Plant Expansion and Modification program category (8400) contains program elements that represent institutional resources committed to creating new facilities or modifying existing facilities and grounds. Included within this program category are the program elements established by the institution to assist in expansion and modification functions (e.g., campus architects and engineers, construction office, etc.) and the resources required to support their operation. Capital expenditures for plant expansion and modification should be reflected as activity indicators rather than costs to the program category.

Faculty and Staff Services (subprogram 6.6) includes the program elements established to provide support services for the faculty and staff. Coding for the program sectors within the subprogram is based on the codes used in the student support subprogram (5.5) and includes those program elements for which the primary intent of their establishment is to provide support and convenience services to the faculty and staff. As noted previously, in those instances where the primary intent is not obvious (e.g., a central cafeteria) the program element should be classified within the student support subprogram.

Community Relations (subprogram 6.7) are those program elements that have been established to maintain relationships with the general community, the institution's alumni, or other constituents, and to conduct activities related to development and fund raising. Excluded from this subprogram are the program elements established primarily to provide public service to the community.

7.0 Independent Operations Program

The independent operations program provides the capability to classify those program elements that are independent of, or unrelated to, the primary missions of the institution. The independent operations program consists of two subprograms.

7.1 Institutional Operations

7.2 Outside Agencies

Institutional Operations (subprogram 7.1) are those program elements that represent operations owned or controlled by the institution and are foreign to, or independent of, the institution's mission: e.g., the operation of commercial rental property for income, a pancake house, a race track. The program subcategory codes within the Institutional Operations program category (9700) are unassigned to permit the classification of the various unique institutional assets or program elements in a manner consistent with the institutional structure.

Outside Agencies (subprogram 7.2) are those program elements that are controlled or operated by outside agencies but are housed or otherwise supported by the institution. An example would be the Western Interstate Commission for Higher Education, which has its offices on the campus of the University of Colorado. Coding within the Outside Agencies program category (9800) is unassigned to permit institutional classification of the various resources (generally, facilities and related services) committed to such external program elements.

4.0 ACADEMIC SUPPORT PROGRAM

4.1 LIBRARIES SUBPROGRAM

4.1.0000 Central Service Program Category
e.g., One central library which serves all disciplines. Include central functions such as administration under xx00.

4.1.0050 General Support Operations
e.g., Acquisitions
Billing
Bindery
Cataloging
Shipping and Receiving

4.1.0060 General Production Services
e.g., Art Services
Audio Services
Circulation Services
Displays and Exhibits
Loan and Rental Services
Material and Preparation
Motion Picture Services
Reference and Information Services
Reserve Services
Still Photo Services
Television and Video Services

4.1.0070 Special or Named Collections
4.1.0080 Unassigned: May be used for additional program subcategories related to functional operations within the library.
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.
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4.1.0099

4.1.0100 Agriculture and Natural Resources Program Category

4.1.0150 General Support Operations
4.1.0160 General Production Services
4.1.0170 Special or Named Collections
4.1.0180 Unassigned
4.1.0190 Unassigned

4.1.0200 Architecture and Environmental Design Program Category

. Note: Refer to the appendices for
. . a complete listing of the
. HEGIS discipline categories.

4.1.5500 Public Service Related Technologies Program Category

4.1.5550 General Support Operations
4.1.5560 General Production Services
4.1.5570 Special or Named Collections
4.1.5580 Unassigned
4.1.5590 Unassigned

4.1.9400 Other Academic Support Program Category

4.1.9401 Unassigned: May be used for Academic Support program elements which are established to provide library services and are not appropriately assigned to the HEGIS discipline categories listed in the appendices.
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4.1.9499

4.0 ACADEMIC SUPPORT PROGRAM (continued)

4.2 MUSEUMS AND GALLERIES SUBPROGRAM

4.2.0000 Central Service Program Category
e.g., One Museum or Gallery serves all disciplines.
Include central functions such as administration under xx00.

4.2.0050 General Support Operations
e.g., Acquisitions
Billing
Bindery
Cataloging
Shipping and Receiving

4.2.0060 General Production Services
e.g., Art Services
Audio Services
Circulation Services
Displays and Exhibits
Loan and Rental Services
Material and Preparation
Motion Picture Services
Reference and Information Services
Reserve Services
Still Photo Services
Television and Video Services

4.2.0070 Special or Named Collections
4.2.0080 Unassigned: May be used for additional program subcategories related to functional operations within the library.
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4.2.0099

4.2.0100 Agriculture and Natural Resources Program Category

4.2.0150 General Support Operations
4.2.0160 General Production Services
4.2.0170 Special or Named Collections
4.2.0180 Unassigned
4.2.0190 Unassigned

4.2.0200 Architecture and Environmental Design Program Category

. Note: Refer to the appendices for
. a complete listing of the
. HEGIS discipline categories.

4.2.5500 Public Service Related Technologies Program Category

4.2.5550 General Support Operations
4.2.5560 General Production Services
4.2.5570 Special or Named Collections
4.2.5580 Unassigned
4.2.5590 Unassigned

4.2.9400 Other Academic Support Program Category

4.2.9401 Unassigned: May be used for Academic Support program elements which are established to provide exhibition and presentation services and are not appropriately assigned to the HEGIS discipline categories listed in the appendices.
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4.2.9499

4.0 ACADEMIC SUPPORT PROGRAM (continued)

4.3 AUDIO/VISUAL SERVICES SUBPROGRAM

4.3.0000 Central Service Program Category
e.g., One audio/visual unit serves all disciplines.
Include central functions such as administration under x00.

4.3.0050 General Support Operations
e.g., Acquisitions
Billing
Bindery
Cataloging
Shipping and Receiving

4.3.0060 General Production Services
e.g., Art Services
Audio Services
Circulation Services
Displays and Exhibits
Loan and Rental Services
Material and Preparation
Motion Picture Services
Reference and Information Services
Reserve Services
Still Photo Services
Television and Video Services

4.3.0070 Special or Named Collections
4.3.0080 Unassigned: May be used for additional program subcategories related to functional operations within the library.
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4.3.0099

4.3.0100 Agriculture and Natural Resources Program Category

4.3.0150 General Support Operations
4.3.0160 General Production Services
4.3.0170 Special or Named Collections
4.3.0180 Unassigned
4.3.0190 Unassigned

4.3.0200 Architecture and Environmental Design Program Category

. Note: Refer to the appendices for
. a complete listing of the
. HEGIS discipline categories.

4.3.5500 Public Service Related Technologies Program Category

4.3.5550 General Support Operations
4.3.5560 General Production Services
4.3.5570 Special or Named Collections
4.3.5580 Unassigned
4.3.5590 Unassigned

4.3.9400 Other Academic Support Program Category

4.3.9501 Unassigned: May be used for Academic Support program elements which are established to provide audio/visual services and are not appropriately assigned to the HEGIS discipline categories listed in the appendices.
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4.3.9499

4.0 ACADEMIC SUPPORT PROGRAM (continued)

4.4. COMPUTING SUPPORT SUBPROGRAM

4.4.0000 Central Service Program Category
e.g., A single computer operation that serves all academic disciplines. Include central functions such as administration under xx00.

4.4.0050 Systems Maintenance and Development
4.4.0060 Systems Analysis and Programming
4.4.0070 Computer Operations
4.4.0080 Data Preparation
4.4.0090 Unassigned: May be used for additional program subcategories related to functional operations with the computer center.

4.4.0100 Agriculture and Natural Resources Program Category

4.4.0150 Systems Maintenance and Development
4.4.0160 Systems Analysis and Programming
4.4.0170 Computer Operations
4.4.0180 Data Preparation
4.4.0190 Unassigned: May be used for additional program subcategories related to functional operations with the computer center.

4.4.0200 Architecture and Environmental Design Program Category

4.4.0250 Systems Maintenance and Development
4.4.0260 Systems Analysis and Programming
4.4.0270 Computer Operations
4.4.0280 Data Preparation
4.4.0290 Unassigned

4.4.0300 Area Studies Program Category

. Note: Refer to the appendices for
. a complete listing of the
. HEGIS discipline categories.

4.4.5500 Public Service Related Technologies Program Category

4.4.5550 Systems Maintenance and Development
4.4.5560 Systems Analysis and Programming
4.4.5570 Computer Operations
4.4.5580 Data Preparation
4.4.5590 Unassigned

4.4.9400 Other Academic Support Program Category

4.4.9401 Unassigned: May be used for Academic Support program
. elements which are established to provide
. computational servcies and are not
. appropriately assigned to the HEGIS
. discipline categories listed in the
appendices.

4.4.9499

4.0 ACADEMIC SUPPORT PROGRAM (continued)

4.5 ANCILLARY SUPPORT SUBPROGRAM

4.5.00xx Central Service Program Category
e.g., a central unit which services all disciplines.

4.5.01xx Agriculture and Natural Resources
4.5.02xx Architecture and Environmental Design
4.5.03xx Area Studies
4.5.04xx Biological Sciences
4.5.05xx Business and Management
4.5.06xx Communications
4.5.07xx Computer and Information Sciences

Note: Program Subcategories are unassigned for this subprogram. The last two characters may be used for HEGIS discipline subcategories as listed in the appendices (i.e., xx01 through xx49) or an institutionally defined code (i.e., xx50 through xx99) which identified the particular ancillary support organization. For example:

4.5.0800 Education Program Category

4.5.0850 Preschool Nursery
4.5.0860 Elementary School
4.5.0870 Junior High School
4.5.0880 Senior High School
4.5.0890 School for Gifted Children

4.5.09xx Engineering
4.5.10xx Fine and Applied Arts
4.5.11xx Foreign Languages
4.5.12xx Health Professions
4.5.13xx Home Economics
4.5.14xx Law
4.5.15xx Letters
4.5.16xx Library Science
4.5.17xx Mathematics
4.5.18xx Military Sciences
4.5.19xx Physical Sciences
4.5.20xx Psychology
4.5.21xx Public Affairs and Services
4.5.22xx Social Sciences
4.5.23xx Theology
4.5.49xx Interdisciplinary Studies
4.5.50xx Business and Commerce Technologies
4.5.51xx Data Processing Technologies
4.5.52xx Health Services and Paramedical Technologies
4.5.53xx Mechanical and Engineering Technologies
4.5.54xx Natural Science Technologies
4.5.55xx Public Service Related Technologies

4.5.9400 Other Academic Support Program Category

4.5.9401 Unassigned: May be used for Academic Support program elements which are established to provide ancillary support services and are not appropriately assigned to the above HEGIS discipline categories.
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4.5.9499

4.0 ACADEMIC SUPPORT PROGRAM (continued)

4.6 ACADEMIC ADMINISTRATION AND PERSONNEL DEVELOPMENT/SUBPROGRAM

4.6.0000 Central Service Program Category
e.g., One central function which serves all disciplines such as the graduate school.

4.6.0100 Agriculture and Natural Resources Program Category

4.6.0101 Agriculture, General
4.6.0102 Agronomy, Field Crops, and Crop Management
4.6.0103 Soils Science (Management and Conservation)
4.6.0104 Animal Science (Husbandry)
4.6.0105 Dairy Science (Husbandry)
4.6.0106 Poultry Science
4.6.0107 Fish, Game, and Wildlife Management
4.6.0108 Horticulture (Fruit and Vegetable Production)
4.6.0109 Ornamental Horticulture (Floriculture, Nursery Science)
4.6.0110 Agricultural and Farm Management
4.6.0111 Agricultural Economics
4.6.0112 Agricultural Business
4.6.0113 Food Science and Technology
4.6.0114 Forestry
4.6.0115 Natural Resources Management
4.6.0116 Agriculture and Forestry Technologies
4.6.0117 Range Management
4.6.0199 Other, Specify

4.6.0200 Architecture and Environmental Design Program Category

4.6.0201 Environmental Design, General
4.6.0202 Architecture
4.6.0203 Interior Design
4.6.0204 Landscape Architecture
4.6.0205 Urban Architecture
4.6.0206 City, Community, and Regional Planning
4.6.0299 Other, Specify

4.6.0300 Area Studies Program Category

. Note: Refer to the appendices for
. a complete listing of the
. HEGIS disciplines.

4.6.5500 Public Service Related Technologies Program Category

4.6.5501 Public Service Technologies, General
4.6.5502 Bible Study or Religion-Related Occupations
4.6.5503 Education Technologies (Teacher Aide and 2-year Teacher Training Programs)
4.6.5504 Library Assistant Technologies
4.6.5505 Police, Law Enforcement, Corrections Technologies
4.6.5506 Recreation and Social Work Related Technologies
4.6.5507 Fire Control Technology
4.6.5508 Public Administration and Management Technologies
4.6.5599 Other, Specify

4.6.9400 Other Academic Support Program Category

4.6.9401 Unassigned: May be used for Academic Support program
. elements which are established to provide
. academic administration and personnel
. development and are not appropriately
assigned to the above HEGIS discipline
4.6.9499 categories; e.g., the school of liberal arts.

4.0 ACADEMIC SUPPORT PROGRAM (continued)

4.7 COURSE AND CURRICULUM DEVELOPMENT SUBPROGRAM

4.7.0000 Central Service Program Category
e.g., One central function which serves all disciplines such as curriculum planning committee.

4.7.0100 Agriculture and Natural Resources Program Category

4.7.0101 Agriculture, General
4.7.0102 Agronomy, Field Crops, and Crop Management
4.7.0103 Soils Science (Management and Conservation)
4.7.0104 Animal Science (Husbandry)
4.7.0105 Dairy Science (Husbandry)
4.7.0106 Poultry Science
4.7.0107 Fish, Game, and Wildlife Management
4.7.0108 Horticulture (Fruit and Vegetable Production)
4.7.0109 Ornamental Horticulture (Floriculture, Nursery Science)
4.7.0110 Agricultural and Farm Management
4.7.0111 Agricultural Economics
4.7.0112 Agricultural Business
4.7.0113 Food Science and Technology
4.7.0114 Forestry
4.7.0115 Natural Resources Management
4.7.0116 Agriculture and Forestry Technologies
4.7.0117 Range Management
4.7.0199 Other, Specify

4.7.0200 Architecture and Environmental Design Program Category

4.7.0201 Environmental Design, General
4.7.0202 Architecture
4.7.0203 Interior Design
4.7.0204 Landscape Architecture
4.7.0205 Urban Architecture
4.7.0206 City, Community, and Regional Planning
4.7.0299 Other, Specify

4.7.0300 Area Studies Program Category

. Note: Refer to the appendices for
. a complete listing of the
. HEGIS disciplines.

4.7.5500 Public Service Related Technologies Program Category

4.7.5501 Public Service Technologies, General
4.7.5502 Bible Study or Religion-Related Occupations
4.7.5503 Education Technologies (Teacher Aide and 2-year Teacher Training Programs)
4.7.5504 Library Assistant Technologies
4.7.5505 Police, Law Enforcement, Corrections Technologies
4.7.5506 Recreation and Social Work Related Technologies
4.7.5507 Fire Control Technology
4.7.5508 Public Administration and Management Technologies
4.7.5599 Other, Specify

4.7.9400 Other Public Service Program Category

4.7.9401 Unassigned: May be used for Academic Support program
. elements which are established to provide
. course and curriculum development and are
. not appropriately assigned to the above
HEGIS discipline categories.

4.7.9499

5.0 STUDENT SERVICE PROGRAM

5.1 SOCIAL AND CULTURAL DEVELOPMENT SUBPROGRAM

5.1.7100 Student Development Program Category

5.1.7110 Student Activities
5.1.7120 Cultural Events
5.1.7130 Student Organizations
5.1.7140 Recreation
5.1.7150 Intramural Athletics
5.1.7160 (Reserved for Future Use)
5.1.7170 (Reserved for Future Use)
5.1.7180 Unassigned
5.1.7190 Unassigned: May be used for additional program subcategories related to student development.

5.1.7200 Intercollegiate Athletics Program Category

5.1.7201 Baseball
5.1.7202 Basketball
5.1.7203 Boxing
5.1.7204 Diving
5.1.7205 Fencing
5.1.7206 Football
5.1.7207 Golf
5.1.7208 Gymnasics
5.1.7209 Ice Hockey
5.1.7210 Lacrosse
5.1.7211 Rowing
5.1.7212 Rugby
5.1.7213 Skiing
5.1.7214 Soccer
5.1.7215 Swimming
5.1.7216 Tennis
5.1.7217 Track and Field
5.1.7218 Wrestling
5.1.7219 Reserved
. for
. future
. use

5.1.7249
5.1.7250 Unassigned: May be used for additional program subcategories related to intercollegiate athletics.
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5.1.7299

5.1.9500 Other Student Service Program Category

5.1.9501 Unassigned: May be used for Student Service program elements which have been established to enhance the student's social and cultural development and are not appropriately assigned to the above program categories.
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5.1.9599

5.0 STUDENT SERVICE PROGRAM (continued)

5.2 SUPPLEMENTARY EDUCATIONAL SERVICE SUBPROGRAM

5.2.0000 Central Service Program Category
e.g., A central educational service for all disciplines.

5.2.0050 Tutorials
5.2.0060 Compensatory Training
5.2.0070 Short courses
5.2.0080 Cooperative Student Learning
5.2.0090 Unassigned: May be used for additional program subcategories related to supplementary educational services.

5.2.0100 Agriculture and Natural Resources Program Category

5.2.0150 Tutorials
5.2.0160 Compensatory Training
5.2.0170 Short Courses
5.2.0180 Cooperative Student Learning
5.2.0190 Unassigned: May be used for additional program subcategories related to supplementary educational services.

5.2.0200 Architecture and Environmental Design Program Category

5.2.0250 Tutorials
5.2.0260 Compensatory Training
5.2.0270 Short Courses
5.2.0280 Cooperative Student Learning
5.2.0290 Unassigned: May be used for additional program subcategories related to supplementary educational services.

5.2.0300 Area Studies Program Category

. Note: Refer to the appendices for
. a complete listing of the
. HEGIS disciplines.

5.2.5500 Public Service Related Technologies Program Category

5.2.5550 Tutorials
5.2.5560 Compensatory Training
5.2.5570 Short Courses
5.2.5580 Cooperative Student Learning
5.2.5590 Unassigned: May be used for additional program subcategories related to supplementary educational services.

5.2.9500 Other Student Service Program Category

5.2.9501 Unassigned: May be used for Student Service program
. elements which have been established to
. provide supplementary educational services
. and are not appropriately assigned to
the above HEGIS disciplines.

5.2.9599

5.0 STUDENT SERVICE PROGRAM (continued)

5.3 COUNSELING AND CAREER GUIDANCE SUBPROGRAM

5.3.0000 Central Service Program Category
e.g., A central counseling bureau that serves all disciplines. Include central functions such as administration under xx00.

5.3.0050 Student Personnel Counseling
5.3.0060 Career Guidance Service
5.3.0070 Placement Service
5.3.0080 Unassigned
5.3.0090 Unassigned: May be used for additional program subcategories related to counseling and career guidance.

5.3.0100 Agriculture and Natural Resources Program Category

5.3.0150 Student Personnel Counseling
5.3.0160 Career Guidance Service
5.3.0170 Placement Service
5.3.0180 Unassigned
5.3.0190 Unassigned: May be used for additional program subcategories related to counseling and career guidance.

5.3.0200 Architecture and Environmental Design Program Category

5.3.0250 Student Personnel Counseling
5.3.0260 Career Guidance Service
5.3.0270 Placement Service
5.3.0280 Unassigned
5.3.0290 Unassigned: May be used for additional program subcategories related to counseling and career guidance.

5.3.0300 Area Studies Program Category

. Note: Refer to the appendices for
. a complete listing of the
. HEGIS disciplines.

5.3.5500 Public Service Related Technologies Program Category

5.3.5550 Student Personnel Counseling
5.3.5560 Career Guidance Service
5.3.5570 Placement Service
5.3.5580 Unassigned
5.3.5590 Unassigned: May be used for additional program subcategories related to counseling and career guidance.

5.3.9500 Other Student Service Program Category

5.3.9501 Unassigned: May be used for Student Service program
. elements which have been established to
. to provide counseling and career guidance
. services and are not appropriately assigned
to the above HEGIS discipline categories.

5.3.9599

5.0 STUDENT SERVICE PROGRAM (continued)

5.4 FINANCIAL AID SUBPROGRAM

5.40000 Central Service Program Category
e.g., A central financial aids office that serves all disciplines. Includes central functions such as administration under xx00.

5.4.0050 Financial Analysis and Counseling
5.4.0060 Work-study and Student Employment
5.4.0070 Scholarships, Grants, and Loans
5.4.0080 Records and Collections
5.4.0090 Unassigned: May be used for additional program subcategories related to financial aid services.

5.4.0100 Agriculture and Natural Resources Program Category

5.4.0150 Financial Analysis and Counseling
5.4.0160 Work-study and Student Employment
5.4.0170 Scholarships, Grants, and Loans
5.4.0180 Records and Collections
5.4.0190 Unassigned: May be used for additional program subcategories related to financial aid services.

5.4.0200 Architecture and Environmental Design Program Category

5.4.0250 Financial Analysis and Counseling
5.4.0260 Work-study and Student Employment
5.4.0270 Scholarships, Grants, and Loans
5.4.0280 Records and Collections
5.4.0290 Unassigned: May be used for additional program subcategories related to financial aid services.

5.4.0300 Area Studies Program Category

. Note: Refer to the appendices for
. a complete listing of the
. HEGIS disciplines

5.4.5500 Public Service Related Technologies Program Category

5.4.5550 Financial Analysis and Counseling
5.4.5560 Work-study and Student Employment
5.4.5570 Scholarships, Grants, and Loans
5.4.5580 Records and Collections
5.4.5590 Unassigned: May be used for additional program subcategories related to financial aid services.

5.4.9500 Other Student Services Program Category

5.4.9501 Unassigned: May be used for Student Service program
. elements which have been established
. to provide financial aid for students
. and are not appropriately assigned to
the above HEGIS discipline categories.

5.4.9599

5.0 STUDENT SERVICE PROGRAM (continued)

5.5 STUDENT SUPPORT SUBPROGRAM

5.5.7300 Supporting Service Program Category

5.5.7310	Food Services	
5.5.7320	Health Services	
5.5.7330	Housing Services	
5.5.7340	Retail Services and Concessions	
5.5.7350	(Reserved for future use)	
5.5.7360	(Reserved for future use)	
5.5.7370	(Reserved for future use)	
5.5.7380	Unassigned	
5.5.7390	Unassigned:	May be used for additional program subcategories related to convenience services for students.

5.5.7400 Special Student Service Program Category

5.5.7410	Veterans	
5.5.7420	Foreign Students	
5.5.7430	Disadvantaged	
5.5.7440	Physically Handicapped	
5.5.7450	(Reserved for future use)	
5.5.7460	(Reserved for future use)	
5.5.7470	(Reserved for future use)	
5.5.7480	Unassigned	
5.5.7490	Unassigned:	May be used for additional program subcategories related to convenience services for students.

5.5.9500 Other Student Service Program Category

5.5.9501	Unassigned:	May be used for program elements which have been established to provide student services and are not appropriately assigned to the above program categories.
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5.5.9599		

6.0 INSTITUTIONAL SUPPORT PROGRAM

6.1 EXECUTIVE MANAGEMENT SUBPROGRAM

6.1.8100 Core Operations Program Category

6.1.8110 Executive Direction
e.g., Governing Board
Chief Executive
Senior Executive Officers

6.1.8120 Planning and Programming
e.g., Analytical Studies
Budget Planning
Institutional Research
Physical Planning
Long Range Planning Committees
Policy Committees
Academic Senate

6.1.8130 Legal Services
e.g., Attorney
General Counsel
Patent Counsel

6.1.8190 Unassigned: May be used for additional program subcategories related to central operations.
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6.1.8199

6.1.9600 Other Institutional Support Program Category

6.1.9601 Unassigned: May be used for Institutional Support program elements which have been established to provide executive management services and are not appropriately assigned to the above program categories.
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6.1.9699

6.0 INSTITUTIONAL SUPPORT PROGRAM (continued)

6.2 FISCAL OPERATIONS SUBPROGRAM

6.2.8100 Core Operations Program Category

6.2.8140 Fiscal Control
e.g., Audit
Budget Control
Controller

6.2.8150 Investments
e.g., Endowment Management
Investment Office

6.2.8190 Unassigned: May be used for additional program subcategories related to central operations.
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6.2.8199

6.2.8200 Functional Operations Program Category

6.2.8210 Financial Operations
e.g., Accounting
Bursar
Cashier
Contracts & Grants
Payroll

6.2.8290 Unassigned: May be used for additional program subcategories related to functional operations.
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6.2.8299

6.2.9600 Other Institutional Support Program Category

6.2.9601 Unassigned: May be used for Institutional Support program elements which have been established to provide fiscal services and are not appropriately assigned to the above program categories.
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6.2.9699

6.0 INSTITUTIONAL SUPPORT PROGRAM (continued)

6.3 GENERAL ADMINISTRATIVE SERVICES SUBPROGRAM

6.3.8100 Core Operations Program Category

6.3.8160 Administrative Support
e.g., Administrative Data Processing
Management Systems
Central Files

6.3.8165 Space Management
e.g., Room Scheduling
Space Allocation

6.3.8190 Unassigned: May be used for additional program subcategories related to central operations.
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6.3.8199

6.3.8200 Functional Operations Program Category

6.3.8220 Student Admissions & Records
e.g., Undergraduate Admissions
Graduate Admissions
Foreign Admissions and Evaluation
Transfer Evaluations
Registration
Records
Transcripts
Degree Certification
Publications
Statistics

6.3.8230 Employee Personnel & Records
e.g., Personnel
Insurance
Retirement
Faculty Records
Recruitment

6.3.8290 Unassigned: May be used for additional program subcategories related to functional operations.
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6.3.8299

6.3.9600 Other Institutional Support Program Category

6.3.9601 Unassigned: May be used for Institutional Support program elements which have been established to provide general administrative services and are not appropriately assigned to the above program categories.
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6.3.9699

6.0 INSTITUTIONAL SUPPORT PROGRAM (continued)

6.4. LOGISTICAL SERVICES SUBPROGRAM

6.4.8100 Core Operations Program Category

6.4.8170 Environmental Health & Safety
e.g., Police
Campus Security
Fire Protection
Environmental Safety

6.4.8190 Unassigned: May be used for additional program subcategories related to central operations.
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6.4.8199

6.4.8200 Functional Operations Program Category

6.4.8240 Purchasing and Materials
e.g., Purchasing
Receiving/Shipping
Warehousing & Stores
Equipment Pool
Inventory
Property Management

6.4.8250 Communcation & Services
e.g., Mail & Distribution
Telephone & Telegraph
Printing
Reproduction

6.4.8260 Transportation Services
e.g., Airport
Campus Transportation
Garage
Motor Pool
Parking

6.4.8290 Unassigned: May be used for additional program subcategories related to functional operations.
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6.4.8299

6.4.9600 Other Institutional Support Program Category

6.4.9601 Unassigned: May be used for Institutional Support program elements which have been established to provide logistical services and are not appropriately assigned to the above program categories.
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6.4.9699

6.0 INSTITUTIONAL SUPPORT PROGRAM (continued)

6.5 PHYSICAL PLANT OPERATIONS SUBPROGRAM

6.5.8300 Maintenance Operations Program Category

6.5.8310 Utility Plants
e.g., Electricity
Heating

6.5.8320 Building Maintenance
6.5.8330 Grounds Maintenance
6.5.8340 Custodial Services
6.5.8350 Reserved
. for
. future
. use

6.5.8380
6.5.8390 Unassigned: May be used for additional program
. subcategories related to maintenance
. operations.
.

6.5.8399

6.5.8400 Plant Expansion & Modification Program Category (Noncapital)

6.5.8410 New Building Construction
6.5.8420 Facility Remodeling
6.5.8430 Landscaping & Grounds Modification
6.5.8440 Reserved
. for
. future
. use

6.5.8480
6.5.8490 Unassigned: May be used for additional program
. subcategories related to plant expansion
. and modification.
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6.5.8499

6.5.9600 Other Institutional Support Program Category

6.5.9601 Unassigned: May be used for Institutional Support
. program elements which have been
. established to provide support for
. the campus physical plant and are
6.5.9699 not appropriately assigned to the
above program categories.

6.0 INSTITUTIONAL SUPPORT PROGRAM (continued)

6.6 FACULTY & STAFF SERVICES SUBPROGRAM

6.6.7300 Supporting Service Program Category

6.6.7310 Food Services
6.6.7320 Health Services
6.6.7330 Housing Services
6.6.7340 Retail Services & Concessions
6.6.7350 Reserved
. for
. future
. use

6.6.7380
6.6.7390 Unassigned: May be used for additional program
. subcategories related to convenience
. services for the faculty and staff of the
. institution.

6.6.7399

6.6.9600 Other Institutional Support Program Category

6.6.9601 Unassigned: May be used for Institutional Support
. program elements which have been
. established to provide services for
. faculty and staff and are not appropriately
. assigned to the above program categories.

6.6.9699

6.0 INSTITUTIONAL SUPPORT PROGRAM (continued)

6.7 COMMUNITY RELATIONS SUBPROGRAM

6.7.8100 Core Operations Program Category

6.7.8175 Alumni Relations
e.g., Alumni Office
Alumni Publications
Alumni Club

6.7.8180 Community Relations
e.g., Commencement
Community Affairs
News Service
Public Relations
Public Information
School Relations
State Relations
Federal Relations

6.7.8185 Development
e.g., Campus Foundation
Fund Raising
Research Development

6.7.8190 Unassigned: May be used for additional
. program subcategories related
. to core operations within the
. community relations subprogram.

6.7.8199

6.7.9600 Other Institutional Support Program Category

6.7.9601 Unassigned: May be used for Institutional Support
. program elements which have been established
. to maintain relations with the institution's
. constituency and are not appropriately
assigned to the above program categories.

6.7.9699

7.0 INDEPENDENT OPERATIONS PROGRAM

7.1 INSTITUTIONAL OPERATIONS SUBPROGRAM

7.1.9700 Institutional Operations Program Category

7.1.9701 Unassigned: May be used for Independent
. Operations program elements which
. are owned or controlled by
. the institution.

7.1.9799

7.2 OUTSIDE AGENCIES SUBPROGRAM

7.2.9800 Outside Agencies Program Category

7.2.9801 Unassigned: May be used for identifying
. external program elements
. which are housed or otherwise
. supported by the institution.

7.2.9899

APPENDIX I

THE PCS PROGRAM CATEGORIES

THE PCS PROGRAM CATEGORIES

Section 1. The HEGIS Taxonomy (PCS Discipline Categories 0100-4900)*

0100 AGRICULTURE AND NATURAL RESOURCES

- 0101 Agriculture, General
- 0102 Agronomy (Field Crops, and Crop Management)
- 0103 Soils Science (Management and Conservation)
- 0104 Animal Science (Husbandry)
- 0105 Dairy Science (Husbandry)
- 0106 Poultry Science
- 0107 Fish, Game, and Wildlife Management
- 0108 Horticulture (Fruit and Vegetable Production)
- 0109 Ornamental Horticulture (Floriculture, Nursery Science)
- 0110 Agricultural and Farm Management
- 0111 Agricultural Economics
- 0112 Agricultural Business
- 0113 Food Science and Technology
- 0114 Forestry
- 0115 Natural Resources Management
- 0116 Agriculture and Forestry Technologies
- 0117 Range Management
- 0199 Other, Specify

0200 ARCHITECTURE AND ENVIRONMENTAL DESIGN

- 0201 Environmental Design, General
- 0202 Architecture
- 0203 Interior Design
- 0204 Landscape Architecture
- 0205 Urban Architecture
- 0206 City, Community, and Regional Planning
- 0299 Other, Specify

0300 AREA STUDIES

- 0301 Asian Studies, General
- 0302 East Asian Studies
- 0303 South Asian (India, etc.) Studies
- 0304 Southeast Asian Studies
- 0305 African Studies
- 0306 Islamic Studies
- 0307 Russian and Slavic Studies
- 0308 Latin American Studies
- 0309 Middle Eastern Studies
- 0310 European Studies, General
- 0311 Eastern European Studies
- 0312 West European Studies
- 0313 American Studies
- 0314 Pacific Area Studies
- 0399 Other, Specify

0400 BIOLOGICAL SCIENCES

- 0401 Biology, General
- 0402 Botany, General
- 0403 Bacteriology
- 0404 Plant Pathology
- 0405 Plant Pharmacology
- 0406 Plant Physiology
- 0407 Zoology, General
- 0408 Pathology, Human and Animal
- 0409 Pharmacology, Human and Animal
- 0410 Physiology, Human and Animal
- 0411 Microbiology
- 0412 Anatomy
- 0413 Histology
- 0414 Biochemistry
- 0415 Biophysics
- 0416 Molecular Biology
- 0417 Cell Biology (Cytology, Cell Physiology)
- 0418 Marine Biology
- 0419 Biometrics and Biostatistics
- 0420 Ecology
- 0421 Entomology
- 0422 Genetics
- 0423 Radiobiology
- 0424 Nutrition, Scientific (exclude Nutrition in Home Economics and Dietetics)
- 0425 Neurosciences
- 0426 Toxicology
- 0427 Embryology
- 0499 Other, Specify

0500 BUSINESS AND MANAGEMENT

- 0501 Business and Commerce, General
- 0502 Accounting
- 0503 Business Statistics
- 0504 Banking and Finance

* Reprinted from Huff and Chandler, The Taxonomy of Instructional Programs in Higher Education, Section I: "Conventional Academic Subdivisions of Knowledge and Training."

0505 Investments and Securities
0506 Business Management and Administration
0507 Operations Research
0508 Hotel and Restaurant Management
0509 Marketing and Purchasing
0510 Transportation and Public Utilities
0511 Real Estate
0512 Insurance
0513 International Business
0514 Secretarial Studies
0515 Personnel Management
0516 Labor and Industrial Relations
0517 Business Economics
0599 Other, Specify

0600 COMMUNICATIONS

0601 Communications, General
0602 Journalism (Printed Media)
0603 Radio/TV
0604 Advertising
0605 Communication Media (use of videotape, film, etc., oriented specifically toward radio/TV)
0699 Other, Specify

0700 COMPUTER and INFORMATION SCIENCES

0701 Computer and Information Sciences, General
0702 Information Sciences and Systems
0703 Data Processing
0704 Computer Programming
0705 Systems Analysis
0799 Other, Specify

0800 EDUCATION

0801 Education, General
0802 Elementary Education, General
0803 Secondary Education, General
0804 Junior High School Education
0805 Higher Education, General
0806 Junior and Community College Education
0807 Adult and Continuing Education
0808 Special Education, General
0809 Administration of Special Education
0810 Education of the Mentally Retarded
0811 Education of the Gifted
0812 Education of the Deaf
0813 Education of the Culturally Disadvantaged
0814 Education of the Visually Handicapped
0815 Speech Correction
0816 Education of the Emotionally Disturbed
0817 Remedial Education
0818 Special Learning Disabilities
0819 Education of the Physically Handicapped
0820 Education of the Multiple Handicapped
0821 Social Foundations (History and Philosophy of Education)
0822 Educational Psychology (include Learning Theory)
0823 Pre-Elementary Education (Kindergarten)
0824 Educational Statistics and Research
0825 Educational Testing, Evaluation, and Measurement
0826 Student Personnel (Counseling and Guidance)
0827 Educational Administration
0828 Educational Supervision
0829 Curriculum and Instruction
0830 Reading Education (Methodology and Theory)
0831 Art Education (Methodology and Theory)
0832 Music Education (Methodology and Theory)
0833 Mathematics Education (Methodology and Theory)
0834 Science Education (Methodology and Theory)
0835 Physical Education
0836 Driver and Safety Education
0837 Health Education (include Family Life Education)
0838 Business, Commerce, and Distributive Education
0839 Industrial Arts, Vocational and Technical Education
0899 Other, Specify

0900 ENGINEERING

- 0901 Engineering, General
- 0902 Aerospace, Aeronautical and Astronautical Engineering
- 0903 Agricultural Engineering
- 0904 Architectural Engineering
- 0905 Bioengineering and Biomedical Engineering
- 0906 Chemical Engineering (include Petroleum Refining)
- 0907 Petroleum Engineering (exclude Petroleum Refining)
- 0908 Civil, Construction, and Transportation Engineering
- 0909 Electrical, Electronics, and Communications Engineering
- 0910 Mechanical Engineering
- 0911 Geological Engineering
- 0912 Geophysical Engineering
- 0913 Industrial and Management Engineering
- 0914 Metallurgical Engineering
- 0915 Materials Engineering
- 0916 Ceramic Engineering
- 0917 Textile Engineering
- 0918 Mining and Mineral Engineering
- 0919 Engineering Physics
- 0920 Nuclear Engineering
- 0921 Engineering Mechanics
- 0922 Environmental and Sanitary Engineering
- 0923 Naval Architecture and Marine Engineering
- 0924 Ocean Engineering
- 0925 Engineering Technologies
- 0999 Other, Specify

1000 FINE and APPLIED ARTS

- 1001 Fine Arts, General
- 1002 Art (Painting, Drawing, Sculpture)
- 1003 Art History and Appreciation
- 1004 Music (Performing, Composition, Theory)
- 1005 Music (Liberal Arts Program)
- 1006 Music History and Appreciation (Musicology)
- 1007 Dramatic Arts
- 1008 Dance
- 1009 Applied Design (Ceramics, Weaving, Textile Design, Fashion Design, Jewelry, Metalsmithing, Interior Decoration, Commerical Art)
- 1010 Cinematography
- 1011 Photography
- 1099 Other, Specify

1100 FOREIGN LANGUAGES

- 1101 Foreign Languages, General
- 1102 French
- 1103 German
- 1104 Italian
- 1105 Spanish
- 1106 Russian
- 1107 Chinese
- 1108 Japanese
- 1109 Latin
- 1110 Greek, classical
- 1111 Hebrew
- 1112 Arabic
- 1113 Indian (Asiatic)
- 1114 Scandinavian Languages
- 1115 Slavic Languages (other than Russian)
- 1116 African Languages (non-Semitic)
- 1199 Other, Specify

1200 HEALTH PROFESSIONS

- 1201 Health Professions, General
- 1202 Hospital and Health Care Administration
- 1203 Nursing
- 1204 Dentistry
- 1205 Dental Specialties
- 1206 Medicine
- 1207 Medical Specialties
- 1208 Occupational Therapy
- 1209 Optometry
- 1210 Osteopathic Medicine
- 1211 Pharmacy
- 1212 Physical Therapy
- 1213 Dental Hygiene
- 1214 Public Health
- 1215 Medical Record Librarianship
- 1216 Podiatry or Podiatric Medicine
- 1217 Biomedical Communication
- 1218 Veterinary Medicine
- 1219 Veterinary Medicine Specialties
- 1220 Speech Pathology and Audiology
- 1221 Chiropractic
- 1222 Clinical Social Work

1223 Medical Laboratory Technologies
1224 Dental Technologies
1225 Radiologic Technologies
1299 Other, Specify

1300 HOME ECONOMICS
1301 Home Economics, General
1302 Home Decoration and Home Equipment
1303 Clothing and Textiles
1304 Consumer Economics and Home Management
1305 Family Relations and Child Development
1306 Foods and Nutrition (include Dietetics)
1307 Institutional Management and Cafeteria Management
1399 Other, Specify

1400 LAW
1401 Law, General
1499 Other, Specify

1500 LETTERS
1501 English, General
1502 Literature, English
1503 Comparative Literature
1504 Classics
1505 Linguistics (include Phonetics, Semantics, and Philology)
1506 Speech, Debate, and Forensic Science (Rhetoric and Public Address)
1507 Creative Writing
1508 Teaching of English as a Foreign Language
1509 Philosophy
1510 Religious Studies (exclude Theological Professions)
1599 Other, Specify

1600 LIBRARY SCIENCE
1601 Library Science, General
1699 Other Specify

1700 MATHEMATICS
1701 Mathematics, General
1702 Statistics, Mathematical and Theoretical
1703 Applied Mathematics
1799 Other, Specify

1800 MILITARY SCIENCES
1801 Military Science (Army)
1802 Naval Science (Navy, Marines)
1803 Aerospace Science (Air Force)
1899 Other, Specify

1900 PHYSICAL SCIENCES
1901 Physical Sciences, General
1902 Physics, General (exclude Biophysics)
1903 Molecular Physics
1904 Nuclear Physics
1905 Chemistry, General (exclude Biochemistry)
1906 Inorganic chemistry
1907 Organic chemistry
1908 Physical chemistry
1909 Analytical chemistry
1910 Pharmaceutical chemistry
1911 Astronomy
1912 Astrophysics
1913 Atmospheric Sciences and Meteorology
1914 Geology
1915 Geochemistry
1916 Geophysics and Seismology
1917 Earth Sciences, General
1918 Paleontology
1919 Oceanography
1920 Metallurgy
1999 Other, Specify

2000 PSYCHOLOGY
2001 Psychology, General
2002 Experimental Psychology (animal and human)
2003 Clinical Psychology
2004 Psychology for Counseling
2005 Social Psychology
2006 Psychometrics
2007 Statistics in Psychology
2008 Industrial Psychology
2009 Developmental Psychology
2010 Physiological Psychology
2099 Other, Specify

2100 PUBLIC AFFAIRS and SERVICES
2101 Community Services, General
2102 Public Administration
2103 Parks and Recreation Management

2104 Social Work and Helping Services (other than Clinical Social Work)

2105 Law Enforcement and Corrections

2106 International Public Service (other than Diplomatic Service)

2199 Other, Specify

2200 SOCIAL SCIENCES

2201 Social Sciences, General

2202 Anthropology

2203 Archeology

2204 Economics

2205 History

2206 Geography

2207 Political Science and Government

2208 Sociology

2209 Criminology

2210 International Relations

2211 Afro-American (Black Culture) Studies

2212 American Indian Cultural Studies

2213 Mexican-American Cultural Studies

2214 Urban Studies

2215 Demography

2299 Other, Specify

2300 THEOLOGY

2301 Theological Professions, General

2302 Religious Music

2303 Biblical Languages

2304 Religious Education

2399 Other, Specify

4900 INTERDISCIPLINARY STUDIES

4901 General Liberal Arts and Sciences

4902 Biological and Physical Sciences

4903 Humanities and Social Sciences

4904 Engineering and Other Disciplines

4905 Other, Specify

Section 2. The HEGIS Taxonomy (PCS Discipline Categories 5000-5500)*

5000 BUSINESS and COMMERCE TECHNOLOGIES

- 5001 Business and Commerce Technologies, General
- 5002 Accounting Technologies
- 5003 Banking and Finance Technologies
- 5004 Marketing, Distribution, Purchasing, Business, and Industrial Management Technologies
- 5005 Secretarial Technologies (include Office Machines Training)
- 5006 Personal Service Technologies (Stewardess, Cosmetologist, etc.)
- 5007 Photography Technologies
- 5008 Communications and Broadcasting Technologies (Radio/TV, Newspapers)
- 5009 Printing and Lithography Technologies
- 5010 Hotel and Restaurant Management Technologies
- 5011 Transportation and Public Utility Technologies
- 5012 Applied Arts, Graphic Arts, and Fine Arts Technologies (include advertising design)
- 5099 Other, Specify

5100 DATA PROCESSING TECHNOLOGIES

- 5101 Data Processing Technologies, General
- 5102 Key Punch Operator and Other Input Preparation Technologies
- 5103 Computer Programmer Technologies
- 5104 Computer Operator and Peripheral Equipment Operation Technologies
- 5105 Data Processing Equipment Maintenance Technologies
- 5199 Other, Specify

5200 HEALTH SERVICES and PARAMEDICAL TECHNOLOGIES

- 5201 Health Services Assistant Technologies, General
- 5202 Dental Assistant Technologies
- 5203 Dental Hygiene Technologies
- 5204 Dental Laboratory Technologies
- 5205 Medical or Biological Laboratory Assistant Technologies
- 5206 Animal Laboratory Assistant Technologies
- 5207 Radiologic Technologies (X-Ray, etc.)
- 5208 Nursing, R.N. (less than 4-year program)
- 5209 Nursing, Practical (L.P.N. or L.V.N. - less than 4-year program)
- 5210 Occupational Therapy Technologies
- 5211 Surgical Technologies
- 5212 Optical Technologies (include Ocular Care, Ophthalmic, Optometric Technologies)
- 5213 Medical Record Technologies
- 5214 Medical Assistant and Medical Office Assistant Technologies
- 5215 Inhalation Therapy Technologies
- 5216 Psychiatric Technologies (include Mental Health Aide Programs)
- 5217 Electro Diagnostic Technologies (include E.K.G., E.E.G., etc.)
- 5218 Institutional Management Technologies (Rest Home, etc.)
- 5219 Physical Therapy Technologies
- 5299 Other, Specify

5300 MECHANICAL and ENGINEERING TECHNOLOGIES

- 5301 Mechanical and Engineering Technologies, General
- 5302 Aeronautical and Aviation Technologies
- 5303 Engineering Graphics (Tool and Machine Drafting and Design)
- 5304 Architectural Drafting Technologies
- 5305 Chemical Technologies (include Plastics)
- 5306 Automotive Technologies
- 5307 Diesel Technologies
- 5308 Welding Technologies
- 5309 Civil Technologies (Surveying, Photogrammetry, etc.)
- 5310 Electronics and Machine Technologies (TV, Appliance, Office Machine Repair, etc.)

* Reprinted from Huff and Chandler, The Taxonomy of Instructional Programs in Higher Education, Section 2: "Technological and Occupational Disciplines Leading to Associate Degrees and Other Awards below the Baccalaureate."

5311 Electromechanical Technologies

5312 Industrial Technologies

5313 Textile Technologies

5314 Instrumentation Technologies

5315 Mechanical Technologies

5316 Nuclear Technologies

5317 Construction and Building Technologies (Carpentry, electrical Work, Plumbing, Sheet Metal, Air Conditioning, Heating, etc.)

5399 Other, Specify

5400 NATURAL SCIENCE TECHNOLOGIES

5401 Natural Science Technologies, General

5402 Agriculture Technologies (include Horticulture)

5403 Forestry and Wildlife Technologies (include Fisheries)

5404 Food Services Technologies

5405 Home Economics Technologies

5406 Marine and Oceanographic Technolcgies

5407 Laboratory Technologies, General

5408 Sanitation and Public Health Inspection Technologies (Environmental Health Technologies)

5499 Other, Specify

5500 PUBLIC SERVICE RELATED TECHNOLOGIES

5501 Public Service Technologies, General

5502 Bible Study or Religion-Related Occupations

5503 Education Technologies (Teacher Aide and 2-year Teacher Training Programs)

5504 Library Assistant Technologies

5505 Police, Law Enforcement, Corrections Technologies

5506 Recreation and Social Work Related Technologies

5507 Fire Control Technology

5508 Public Administration and Management Technologies

5599 Other, Specify

THE PCS PROGRAM CATEGORIES (CONTINUED)

Section 3. The PCS Program Categories 0000, 6600-9900

(Note: The fourth digit is unassigned unless otherwise noted in all subcategories ending in zero.)

0000 Central Services

i.e., Services crossing support program categories

6600 Agriculture Extension Service

- 6610 Agriculture and Related Industries
- 6620 Social and Economic Development
- 6630 Quality of Living
- 6640 International Extension
- 6650 Unassigned
- o
- o
- o
- 6690

6700 Urban Extension Service

- 6710 Unassigned
- o
- o
- o
- 6790

6800 Reserved for Future Use

6900 Reserved for Future Use

7100 Student Development

- 7110 Student Activities
- 7120 Cultural Events
- 7130 Student Organizations
- 7140 Recreation
- 7150 Intramural Athletics
- 7160 (Reserved)
- 7170 (Reserved)
- 7180 (Reserved)
- 7190 Unassigned

7200 Intercollegiate Athletics

- 7201 Baseball
- 7202 Basketball
- 7203 Boxing
- 7204 Diving
- 7205 Fencing
- 7206 Football
- 7207 Golf
- 7208 Gymnastics
- 7209 Ice Hockey
- 7210 Lacrosse
- 7211 Rowing
- 7212 Rugby
- 7213 Skiing
- 7214 Soccer
- 7215 Swimming
- 7216 Tennis
- 7217 Track and Field
- 7218 Wrestling
- 7219 (Reserved)
- o
- o
- o
- 7249
- 7250 Unassigned
- o
- o
- o
- 7299

7300 Supporting Services

- 7310 Food Services
- 7320 Health Services
- 7330 Housing Services
- 7340 Retail Services and Concessions
- 7350 (Reserved)
- 7360 (Reserved)
- 7370 (Reserved)
- 7380 (Reserved)
- 7390 Unassigned

7400 Special Student Services
- 7410 Veterans
- 7420 Foreign Students
- 7430 Disadvantaged
- 7440 Physically Handicapped
- 7450 (Reserved)
- 7460 (Reserved)
- 7470 (Reserved)
- 7480 (Reserved)
- 7490 Unassigned

8100 Central Operations
- 8110 Executive Direction
- 8120 Planning and Programming
- 8130 Legal Services
- 8140 Fiscal Control
- 8150 Investments
- 8160 Administrative Support
- 8165 Space Management
- 8170 Environmental Health and Safety
- 8175 Alumni Relations
- 8180 Community Relations
- 8185 Development
- 8190 Unassigned

8200 Functional Operations
- 8210 Fiscal Operations
- 8220 Student Admissions and Records
- 8230 Employee Personnel and Records
- 8240 Purchasing and Materials
- 8250 Communication and Services
- 8260 Transportation Services
- 8270 (Reserved)
- 8280 (Reserved)
- 8290 Unassigned

8300 Maintenance Operations
- 8310 Utility Plants
- 8320 Building Maintenance
- 8330 Grounds Maintenance
- 8340 Custodial Services
- 8350 (Reserved)
- 8360 (Reserved)
- 8370 (Reserved)
- 8380 (Reserved)
- 8390 Unassigned

8400 Plant Expansion and Modification (Noncapital)
- 8410 New Building Construction
- 8420 Facility Remodeling
- 8430 Landscaping and Grounds Modification
- 8440 (Reserved)
- 8450 (Reserved)
- 8460 (Reserved)
- 8470 (Reserved)
- 8480 (Reserved)
- 8490 Unassigned

9100 Other Instruction
- 9101 Unassigned
- °
- °
- °
- 9199

9200 Other Organized Research
- 9201 Unassigned
- °
- °
- °
- 9299

9300 Other Public Service
- 9301 Unassigned
- °
- °
- °
- 9399

9400 Other Academic Support
- 9401 Unassigned
- °
- °
- °
- 9499

9500 Other Student Services
- 9501 Unassigned
- °
- °
- °
- 9599

9600 Other Institutional Support

9601 Unassigned

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9699

9700 Institutional Operations

9701 Unassigned

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9799

9800 Outside Agencies

9801 Unassigned

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9899

9900 Institutions Unique

9901 Unassigned

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9999

THE PCS PROGRAM CATEGORIES (CONTINUED)

Section 4. The PCS Functional Subcategories

(Note: The fourth digit is unassigned unless otherwise noted in all subcategories ending in zero.)

Subprograms 4.1, 4.2, 4.3

XX50	General Support Operations
XX60	General Production Services
XX70	Special or Named Collections
XX80	Unassigned
XX90	Unassigned

Subprogram 4.4, Computing Support

XX50	Systems Maintenance and Development
XX60	Systems Analysis and Programming
XX70	Computer Operations
XX80	Data Preparation
XX90	Unassigned

Subprogram 5.2, Supplementary Educational Service

XX50	Tutorials
XX60	Compensatory Training
XX70	Short Courses
XX80	Cooperative Student Learning
XX90	Unassigned

Subprogram 5.3, Counseling and Career Guidance

XX50	Student Perseonnel Counseling
XX60	Career Guidance Service
XX70	Placement Service
XX80	Unassigned
XX90	Unassigned

Subprogram 5.4, Financial Aid

XX50	Financial Analysis and Counseling
XX60	Work Study and Student Employment
XX70	Scholarships, Grants, and Loans
XX80	Records and Collections
XX90	Unassigned

APPENDIX II

ALPHABETICAL INDEX OF PCS PROGRAM SUBCATEGORIES

ALPHABETICAL INDEX OF PCS PROGRAM SUBCATEGORIES

Section 1. The HEGIS Taxonomy (PCS Discipline Subcategories 0101-4999)

CODE	TITLE
0502	Accounting
0506	Administration, Business
0827	Administration, Educational
2102	Administration, Public
0809	Administration, Special Education
0807	Adult Education
0604	Advertising
0902	Aeronautical Engineering
0902	Aerospace Engineering
1803	Aerospace Science
1116	African Languages (non-Semitic)
0305	African Studies
2211	Afro-American Studies
0112	Agricultural Business
0111	Agricultural Economics
0899	Agricultural Education
0903	Agricultural Engineering
0110	Agricultural Management
0101	Agriculture, General
0116	Agriculture Technologies
0102	Agronomy
2212	American Indian Cultural Studies
0313	American Studies
1909	Analytical Chemistry
0412	Anatomy
0104	Animal Science
2202	Anthropology
1009	Applied Design
1703	Applied Mathematics
1112	Arabic
2203	Archeology
0904	Architectural Engineering
0202	Architecture
0923	Architecture, Naval
1002	Art
1003	Art Appreciation
1009	Art, Commercial
0831	Art Education
1003	Art History
4903	Arts, General
4901	Arts and Science, General
0301	Asian Studies, General
0902	Astronautical Engineering
1911	Astronomy
1912	Astrophysics
1913	Atmospheric Sciences
1220	Audiology
0403	Bacteriology
0504	Banking
2303	Biblical Languages
0414	Biochemistry
0905	Bioengineering
4902	Biological and Physical Sciences (Interdisciplinary)
0417	Biology, Cellular
0401	Biology, General
0418	Biology, Marine
0416	Biology, Molecular
1217	Biomedical Communication
0905	Biomedical Engineering
0419	Biometrics
0415	Biophysics
0419	Biostatistics
2211	Black Culture Studies
0402	Botany, General
0506	Business Administration
0112	Business, Agricultural
0517	Business Economics
0838	Business Education
0501	Business, General
0513	Business, International
0506	Business Management
0503	Business Statistics
1307	Cafeteria Management
1199	Catalan
0417	Cell Biology
0417	Cell Physiology
0916	Ceramic Engineering
1009	Ceramics
0906	Chemical Engineering
1905	Chemistry, General
1305	Child Development
1107	Chinese
1216	Chiropody
1221	Chiropractic
1010	Cinematography
0206	City Planning
0908	Civil Engineering
1504	Classics
1205	Clinical Dental Sciences
1207	Clinical Medical Sciences
2003	Clinical Psychology
1222	Clinical Social Work
1219	Clinical Veterinary Medical Sciences
1303	Clothing
0801	Combined Elementary and Secondary Education
0838	Commerce Education
0501	Commerce, General
1009	Commerical Art
0605	Communication Media
0601	Communications, General
0909	Communications Engineering
0806	Community College Education
0206	Community Planning
2101	Community Services, General
0821	Comparative Education
1503	Comparative Literature
0704	Computer Programming
0701	Computer Sciences, General
0908	Construction Engineering
1304	Consumer Economics
0807	Continuing Education
2105	Corrections
0826	Counseling, Educational
2004	Counseling, Psychology for
1507	Creative Writing
2209	Criminology
0102	Crop Management
0829	Curriculum
0417	Cytology

CODE	TITLE
0105	Dairy Science
1008	Dance
1114	Danish
0703	Data Processing
1506	Debate
2215	Demography
1213	Dental Hygiene
1205	Dental Specialities
1224	Dental Technologies
1204	Dentistry
2009	Developmental Psychology
1306	Dietetics
0838	Distributive Education
1007	Dramatic Arts
1002	Drawing
0836	Driver Education
1917	Earth Sciences, General
0302	East Asian Studies
0311	Eastern European Studies
0420	Ecology
2204	Economics
0111	Economics, Agricultural
0517	Economics, Business
0813	Education of the Culturally Disadvantaged
0812	Education of the Deaf
0816	Education of the Emotionally Disturbed
0899	Education of Exceptional Children
0801	Education, General
0811	Education of the Gifted
0810	Education of Mentally Retarded
0820	Education of the Multiple Handicapped
0819	Education of the Physically Handicapped
2304	Education, Religious
0814	Education of the Visually Handicapped
0827	Educational Administration
0825	Educational Evaluation
0825	Educational Measurement
0822	Educational Psychology
0824	Educational Research
0824	Educational Statistics
0828	Educational Supervision
0825	Educational Testing
0909	Electrical Engineering
0909	Electronics Engineering
0802	Elementary Education, General
0427	Embryology
0901	Engineering, General
0921	Engineering Mechanics
4904	Engineering and Other Disciplines (Interdisciplinary)
0919	Engineering Physics
0925	Engineering Technologies
1508	English as a Foreign Language
1501	English, General
1502	English, Literature
0421	Entomology
0201	Environmental Design, General
0922	Environmental Engineering
0922	Environmental Health
0310	European Studies, General
2002	Experimental Psychology (animal and human)
0837	Family Life Education
1305	Family Relations
0110	Farm Management
1009	Fashion Design
0102	Field Crops
0504	Finance
1001	Fine Arts, General
1114	Finnish
0107	Fish Management
0109	Floriculture
1599	Folklore
1306	Foods and Nutrition
0113	Food Science
0113	Food Technology
1101	Foreign Languages, General
2210	Foreign Service Programs
1506	Forensic Science
0114	Forestry
0116	Forestry Technologies
1102	French
0108	Fruit Production
0107	Game Management
4901	General Liberal Arts and Sciences (Interdisciplinary)
0422	Genetics
1915	Geochemistry
2206	Geography
0911	Geological Engineering
1914	Geology
0912	Geophysical Engineering
1916	Geophysics
1103	German
1199	Germanic Languages, Other
2207	Government
1110	Greek, Classical
0826	Guidance, Education
1202	Health Care Administration
0837	Health Education
1201	Health Professions, General
0820	Hearing and Speech Impaired
1111	Hebrew
2104	Helping Services
0805	Higher Education, General
1113	Hindi
0413	Histology
2205	History
0821	History of Education
1302	Home Decoration
0899	Home Economics Education
1301	Home Economics, General
1302	Home Equipment
1304	Home Management
0108	Horticulture
1202	Hospital Administration
0508	Hotel Management
4903	Humanities and Social Sciences (Interdisciplinary)
0104	Husbandry, Animal
0105	Husbandry, Dairy

CODE	TITLE
0499	Ichthyology
0303	India Studies
1113	Indian (Asiatic)
0839	Industrial Arts Education
0913	Industrial Engineering
2008	Industrial Psychology
0516	Industrial Relations
0702	Information Sciences
0701	Information Sciences, General
0702	Information Systems
1906	Inorganic Chemistry
1307	Institutional Management
0829	Instruction
0512	Insurance
1009	Interior Decoration
0203	Interior Design
0199	International Agriculture
0513	International Business
2106	International Public Service
2210	International Relations
0505	Investments
0306	Islamic Studies
1104	Italian
1108	Japanese
1009	Jewelry
0602	Journalism
0806	Junior College Education
0804	Junior High School Education
0823	Kindergarten Education
1199	Korean
0516	Labor Relations
0204	Landscape Architecture
1101	Languages, Modern
1109	Latin
0308	Latin American Studies
2105	Law Enforcement
1401	Law, General
0822	Learning Theory
4901	Liberal Arts and Sciences (Interdisciplinary)
1601	Library Science, General
0499	Limnology
1505	Linquistics
1503	Literature, Comparative
1502	Literature, English
0506	Management, Business
0913	Management, Engineering
0418	Marine Biology
0923	Marine Engineering
0509	Marketing
0915	Materials Engineering
0915	Materials Science
1703	Mathematics, Applied
0833	Mathematics, Education
1701	Mathematics, General
1702	Mathematics, Statistics
0910	Mechanical Engineering
1223	Medical Laboratory Technologies
1215	Medical Record Librarianship
1207	Medical Specialties
1206	Medicine

CODE	TITLE
1899	Merchant Marine
0914	Metallurgical Engineering
1920	Metallurgy
1009	Metalsmithing
1913	Meteorology
2213	Mexican-American Cultural Studies
0411	Microbiology
0309	Middle Eastern Studies
1801	Military Science
0918	Mineral Engineering
0918	Mining Engineering
0911	Mining Geology
0416	Molecular Biology
1903	Molecular Physics
1005	Music (Liberal Arts Program)
1006	Music Appreciation
1004	Music, Composition
0832	Music Education
1006	Music History
1004	Music, Performing
2302	Music, Religious
1004	Music, Theory
1006	Musicology
0499	Mycology
0115	Natural Resources Management
0923	Naval Architecture
1802	Naval Science
0425	Neurosciences
1114	Norwegian
0920	Nuclear Engineering
1904	Nuclear Physics
0823	Nursery Education
0109	Nursery Science
1203	Nursing
0899	Nursing Education
0424	Nutrition, Scientific
1208	Occupational Therapy
0924	Ocean Engineering
1919	Oceanography
0507	Operations Research
1209	Optometry
1907	Organic Chemistry
0109	Ornamental Horticulture
0499	Ornithology
1210	Osteopathic Medicine
0314	Pacific Area Studies
1002	Painting
1918	Paleontology
0499	Parasitology
2103	Parks Management
0408	Pathology, Animal
0408	Pathology, Human
0404	Pathology, Plant
0515	Personnel Management
0907	Petroleum Engineering
0906	Petroleum Refining
1910	Pharmaceutical Chemistry
0409	Pharmacology, Animal
0409	Pharmacology, Human
0405	Pharmacology, Plant
1211	Pharmacy
1505	Philology
1509	Philosophy
0821	Philosophy of Education

CODE	TITLE
1505	Phonetics
1011	Photography
1908	Physical Chemistry
0835	Physical Education
1901	Physical Sciences, General
1212	Physical Therapy
1902	Physics, General
2010	Physiological Psychology
0410	Physiology, Animal
0410	Physiology, Human
0406	Physiology, Plant
0404	Plant Pathology
0405	Plant Pharmacology
0406	Plant Physiology
1216	Podiatry
2207	Political Science
1199	Portuguese
0106	Poultry Science
0823	Pre-Elementary Education
0704	Programming, Computer
2003	Psychology, Clinical
2004	Psychology for Counseling
2009	Psychology, Developmental
0822	Psychology, Education
2001	Psychology, General
2008	Psychology, Industrial
2010	Psychology, Physiological
2005	Psychology, Social
2006	Psychometrics
1506	Public Address
2102	Public Administration
1214	Public Health
0510	Public Utilities
0509	Purchasing
0603	Radio
0423	Radiobiology
1225	Radiologic Technologies
0117	Range Management
0830	Reading Education
0511	Real Estate
0514	Records Management
2103	Recreation Management
0206	Regional Planning
2004	Rehabilitation Counselor Training
1222	Rehabilitation Services
2304	Religious Education
2302	Religious Music
1510	Religious Studies
0817	Remedial Education
0508	Restaurant Management
0838	Retail Selling
1506	Rhetoric
1106	Russian
0307	Russian Studies
0836	Safety Education
0922	Sanitary Engineering
1199	Sanskrit
1114	Scandinavian Languages
0834	Science Education
0999	Science Engineering
4902	Sciences, General
1002	Sculpture
0803	Secondary Education, General
0514	Secretarial Studies
0505	Securities
1916	Seismology
1505	Semantics
1111	Semitic
1115	Slavic Languages (other than Russian)
0307	Slavic Studies
0821	Social Foundations of Education
2201	Social Sciences, General
2005	Social Psychology
2104	Social Work
2208	Sociology
0103	Soil Conservation
0103	Soil Management
0103	Soil Science
0303	South Asian Studies
0304	Southeast Asian Studies
1105	Spanish
0808	Special Education, General
0818	Special Learning Disabilities
1506	Speech
0815	Speech Correction
0820	Speech and Hearing Impaired
1220	Speech Pathology
1702	Statistics, Mathematical and Theoretical
2007	Statistics in Psychology
0826	Student Personnel
1114	Swedish
0705	Systems Analysis
0702	Systems, Information
1508	Teaching of English as a Foreign Language
0839	Technical Education
0603	Television
1009	Textile Design
0917	Textile Engineering
1303	Textiles, Home Economics
2301	Theological Professions, General
0821	Theory of Education
0426	Toxicology
0925	Trade Training
0510	Transportation
0908	Transportation Engineering
0205	Urban Architecture
2214	Urban Studies
1113	Urdu
0108	Vegetable Production
1218	Veterinary Medicine
1219	Veterinary Medicine Specialties
1199	Vietnamese
0499	Virology
0839	Vocational Education
1009	Weaving
0312	West European Studies
0107	Wildlife Management
1507	Writing, Creative
0407	Zoology, General

Section 2. The HEGIS Taxonomy (PCS Discipline Subcategories 5001-5599)

CODE	TITLE
5002	Accounting Technologies
5012	Advertising Design Technologies
5004	Advertising Technologies
5302	Aeronautical Technologies
5402	Agriculture Technologies
5317	Agriculture Electrification Technologies
5301	Agricultural Machinery and Equipment Technologies
5317	Air Conditioning Technologies
5004	Airport Management Technologies
5206	Animal Laboratory Assistant Technologies
5310	Appliance Repair Technologies
5012	Applied Arts Technologies
5304	Architectural Drafting Technologies
5306	Automotive Technologies
5302	Aviation Technologies
5003	Banking Technologies
5502	Bible Study
5205	Biological Laboratory Assistant Technologies
5008	Broadcasting Technologies
5317	Building Technologies
5101	Business Data Processing
5004	Business Management Technologies
5001	Business Technologies, General
5317	Carpentry Technologies
5305	Chemical Technologies
5309	Civil Technologies
5001	Commerce Technologies, General
5008	Communications Technologies
5104	Computer Operator Technologies
5104	Computer, Peripheral Equipment Operation Technologies
5103	Computer Programmer Technologies
5317	Construction Technologies
5505	Corrections Technologies
5006	Cosmetologist
5105	Data Processing Equipment Maintenance Technologies
5101	Data Processing Technologies, General
5202	Dental Assistant Technologies
5203	Dental Hygiene Technologies
5204	Dental Laboratory Technologies
5307	Diesel Technologies
5004	Distribution Technologies
5304	Drafting, Architectural
5503	Education Technologies
5317	Electrician Technologies
5217	Electro Diagnostic Technologies
5311	Electromechanical Technologies
5310	Electronics and Machine Technologies
5303	Engineering Graphics
5301	Engineering Technologies, General
5408	Environmental Health Technologies
5317	Environmental Control Technologies
5003	Finance Technologies
5012	Fine Arts Technologies
5507	Fire Control Technology
5403	Fisheries Technologies
5404	Food Services Technologies
5403	Forestry Technologies
5012	Graphic Arts Technologies
5201	Health Services Assistant Technologies, General
5317	Heating Technologies
5405	Home Economics Technologies
5402	Horticulture Technologies
5404	Hospital Food Service Technologies
5010	Hotel Management Technologies
5004	Industrial Management Technologies
5312	Industrial Technologies
5215	Inhalation Therapy Technologies
5102	Input Preparation Technologies
5218	Institutional Management Technologies
5314	Instrumentation Technologies
5004	Insurance Technologies
5102	Key Punch Operator Technologies
5407	Laboratory Technologies, General
5402	Landscape Technologies
0802	Language Arts
5505	Law Enforcement Technologies
5504	Library Assistant Technologies
5009	Lithography Technologies
5303	Machine Drafting and Design Technologies
5310	Machine Repair Technologies
5004	Marina Management Technologies
5406	Marine Technologies
5004	Marketing Technologies
5315	Mechanical Technologies
5301	Mechanical Technologies, General
5214	Medical Assistant Technologies
5205	Medical Laboratory Assistant Technologies
5214	Medical Office Assistant Technologies
5213	Medical Record Technologies
5207	Medical X-Ray Technician
5216	Mental Health Aide Programs
5399	Metallurgical Technologies
5401	Natural Science Technologies, General
5008	Newspaper Communication Technologies
5316	Nuclear Technologies
5209	Nursing, Practical
5208	Nursing R.N. Preparation

CODE	TITLE
5210	Occupational Therapy Technologies
5406	Oceanographic Technologies
5212	Ocular Care Technologies
5310	Office Machine Repair Technologies
5005	Office Machines Training
5212	Ophthalmic Technologies
5212	Optical Technologies
5212	Optometric Technologies
5006	Personal Service Technologies
5004	Personnel Management Technologies
5312	Petroleum Technologies
5309	Photogrammetry Technologies
5007	Photography Technologies
5219	Physical Therapy Technologies
5305	Plastics Technologies
5317	Plumbing Technologies
5505	Police Technologies
5009	Printing Technologies
5315	Production Technologies
5103	Programmer Technologies
5216	Psychiatric Technologies
5508	Public Administration and Management Technologies
5408	Public Health Inspection Technologies
5501	Public Service Technologies, General
5011	Public Utility Technologies
5004	Purchasing Technologies
5008	Radio Broadcasting Technologies
5310	Radio Repair Technologies
5207	Radiologic Technologies
5004	Real Estate Technologies
5506	Recreation Technologies
5502	Religion Related Occupations
5218	Rest Home Management Technology
5010	Restaurant Management Technologies
5004	Sales Technologies
5408	Sanitation Technologies
5101	Scientific Data Processing
5005	Secretarial Technologies
5317	Sheet Metal Technologies
5506	Social Work Related Technologies
5006	Stewardess Preparation
5211	Surgical Technologies
5309	Surveying Technologies
5101	Systems Analyst Technologies
5503	Teacher Aide Preparation
5008	Television Broadcasting Technologies
5310	Television Repair Technologies
5313	Textile Technologies
5303	Tool Design Technologies
5011	Transportation Technologies
5308	Welding Technologies
5403	Wildlife Technologies
5207	X-Ray Technologies

ALPHABETICAL INDEX OF PCS PROGRAM SUBCATEGORIES (CONTINUED)

Section 3. The PCS Program Subcategories XX00-9999

CODE	TITLE
8160	Administrative Support
6610	Agriculture and Related Industries
8175	Alumni Relations
7201	Baseball
7202	Basketball
7203	Boxing
8320	Building Maintenance
XX60	Career Guidance Service
XX00	Central Functions
8250	Communication and Services
8180	Community Relations
XX60	Compensatory Training
XX70	Computer Operations
XX80	Cooperative Student Learning
7120	Cultural Events
8340	Custodial Services
XX80	Data Preparation
8185	Development
7430	Disadvantaged
7204	Diving
8230	Employee Personnel and Records
8170	Environmental Health and Safety
8110	Executive Direction
8420	Facility Remodeling
7205	Fencing
XX50	Financial Analysis and Counseling
8140	Fiscal Control
8210	Fiscal Operations
7310	Food Services
7206	Football
7420	Foreign Students
XX60	General Production Services
XX50	General Support Operations
7207	Golf
8330	Grounds Maintenance
7208	Gymnastics
7320	Health Services
7330	Housing Services

CODE	TITLE
7209	Ice Hockey
6640	International Extension
7150	Intramural Athletics
8150	Investments
7210	Lacrosse
8430	Landscaping and Grounds Modification
8130	Legal Services
8410	New Building Construction
7440	Physically Handicapped
XX70	Placement Service
8120	Planning and Programming
8240	Purchasing and Materials
6630	Quality of Living
XX80	Records and Collections
7140	Recreation
7340	Retail Services and Concessions
7211	Rowing
7212	Rugby
XX70	Scholarships, Grants and Loans
XX70	Short Courses
7213	Skiing
7214	Soccer
6620	Social and Economic Development
8165	Space Management
XX70	Special or Named Collections
7110	Student Activities
8220	Student Admissions and Records
7130	Student Organizations
XX50	Student Personnel Counseling
7215	Swimming
XX60	Systems Analysis and Programming
XX50	Systems Maintenance and Development
7216	Tennis
7217	Track
8260	Transportation Services
XX50	Tutorials

8310 Utility Plants

7410 Veterans

XX60 Work Study and Student Employment

7218 Wrestling

APPENDIX III

GLOSSARY OF PROGRAM CLASSIFICATION STRUCTURE TERMS

GLOSSARY OF PROGRAM CLASSIFICATION STRUCTURE TERMS

Term	PCS Code	Description
Academic Administration and Personnel Development	4.6	A subprogram within the academic support program. Those program elements that provide administrative support and management direction for the primary programs.
Academic Support Program	4.0	A support program. Those program elements which directly assist the academic functions of the institution.
Agriculture Extension Service	4.0	A program category within the co-operative extension service sub-program. Those program elements utilized in support of the normally autonomous and self-contained sub-system of organized argiculture extension.
Analytical Model	n/a	A mathematical model in which all functional relationships can be expressed in closed form and the parameters fixed in advance.
Ancillary Support	4.5	A subprogram within the academic support program. Those program elements which provide support services to the primary programs and are not appropriately classi-fied within the various academic support subprograms.
Audio/Visual Services	4.3	A subprogram within the academic support program. Those program elements associated with providing audio and/or visual support services.

Term	PCS Code	Description
Campus	n/a	The highest level of aggregation in the Program Classification Structure.
Common Interest Groups	7x	A program sector within the public service program. A target clientele which is a specific profession or special group, e.g., continuing medical education, C.P.A. review, etc.
Community Education	3.1	A subprogram within the public service program. Those program elements that are managed within the academic departments to provide non-credit instructional services to members of the community other than matriculated students.
Community Relations	6.7	A subprogram within the institutional support program. Those program elements which have been established to maintain relationships with the general community, institution alumni, or other constituents; and activities related to development and fund raising.
Community Sectors	8x	A program sector within the public service program. A target clientele which is a well-defined geographic or political subdivision such as particular socioeconomic classes, specific neighborhoods or communities, etc.
Community Service	3.2	A subprogram within the public service program. Those program elements which have been established to provide general public services to the community at large or special sectors within the community.
Computing Support	4.4	A subprogram within the academic support program. Those program elements which have been established to provide computing support. Excludes administrative data processing.

Term	PCS Code	Description
Cooperative Extension Service	3.3	A subprogram within the public service program. Those program elements established as a result of cooperative efforts between the university and outside agencies, e.g., agriculture extension, urban extension.
Core Operations	8100	A program category. Those program elements in the institutional support program that typically are not influenced by program changes.
Cost/Benefit Analysis	n/a	An analytical approach to solving problems of choice requiring the definition of objectives, identification of alternative ways of achieving each objective, and the determination of which alternative yields the maximum benefit for a given cost or yields a given benefit at the lowest cost.
Counseling and Career Guidance	5.3	A subprogram within the student service program. Those program elements established to provide counseling services, career guidance, and placement services for the student body.
Course and Curriculum Development	4.7	A subprogram within the academic support program. Those program elements established to accomplish the planning and developmental activities for future program elements in the primary programs, i.e., subsequent to the current budget period.
Course Level	n/a	Level of offering for instructional courses (normally associated with student level) but may be used in other programs to differentiate various student groups.
Crossover	n/a	See Crosswalk

Term	PCS Code	Description
Crosswalk	n/a	The expression of the relationship between the program structure and the accounting stucture.
Cultural Events	7120	A program subcategory. Those program elements outside of the curriculum program which have been established to expand the educational experience, e.g., convocations, special conferences, lectures, etc.
Degree Program	n/a	The mix of instructional offerings in various disciplines which comprise the curriculum for a specific academic degree. See Field of Study.
Degree-Winner	n/a	A student who successfully completes a degree or certificate program. Cost per degree-winner excludes the instruction costs attributable to attrition.
Departmental Research	n/a	A class of activities leading to the creation of new knowledge. A class may be faculty activities such as personal research, publication activity, etc., or activities directed toward the development of new courses or curriculum.
Disadvantaged	7430	A program subcategory. Those program elements created to handle special problems associated with disadvantaged students, excluding financial aid services and supplemental educational services.
Executive Management	6.1	A subprogram within the institutional support program. Those central executive-level program elements and other program elements concerned with the management and long-range planning of of the entire institution as contrasted to any one program within the institution.

Term	PCS Code	Description
Extension Instruction (for credit)	1.4	A subprogram within the instruction program. Those instructional program elements that are managed by an extension division (or similar agency within the institution) which are applicable toward a formal degree or certificate.
Faculty and Staff Services	6.6	A subprogram within the institutional support program. Those program elements established to provide support services for the faculty and staff.
Field of Study	n/a	Field of Study refers to the student major area of study. May be used to refer to the mix of courses which comprise a particular degree. See Degree Program.
Financial Aid	5.4	A subprogram within the student service program. Those program elements established to provide financial aid and assistance to students.
Fiscal Operations	6.2	A subprogram within the institutional support program. Those central operations related to fiscal control and investments and functional program elements related to the fiscal operations of the institution.
Food Services	7310	A program subcategory. Those program elements related to the dispensing of food; e.g., cafeteria, snack bar, food and drink vending machine operations, dormitory dining halls, etc.
Foreign Students	7420	A program subcategory. Those program elements established within the institution to provide special services to foreign students, e.g., foreign student office, but excluding special, remedial, or supplemental educational services.

Term	PCS Code	Description
Functional Code	n/a	An alternative coding used in the support subprograms to permit classification of program elements by functions instead of purely by discipline categories and sub-categories.
Functional Operations	8200	A program category. Those program elements in the institutional support program (excluding physical plant operations) that tend to vary as a function of staff, students, or programs.
General Academic Instruction	1.1	A subprogram within the instruction program. Those program elements operating during the academic year that are a part of a formal degree or certificate curriculum and are defined to be associated with academic offerings described by HEGIS discipline categories 0100 through 4900.
General Administrative Services	6.3	A subprogram within the institutional support program. Those program elements which provide administrative services, e.g., administrative data processing, student records, personnel.
Health Services	7320	A program subcategory. Those program elements established to provide medical services including dental and psychiatric care.
HEGIS	n/a	An abbreviation for the Higher Education General Information Survey conducted annually by the National Center for Educational Statistics.
HEGIS Taxonomy	n/a	The PCS designation of A Taxonomy of Instructional Programs which has been adopted as the discipline category coding structure for the primary programs.

Term	PCS Code	Description
Housing Services	7330	A program subcategory. Those program elements associated with the dormitories and housing office.
Independent Operations Program	7.0	A support program. Those program elements which are independent of, or unrelated to, the basic missions of the institution.
Individual or Project Research	2.2	A subprogram within the organized research program. Those research program elements which are normally managed within the academic departments, and which have been created as a result of a contract, grant, or specific allocation of resources to conduct a study or investigation of a specified scope.
Individuals	6x	A program sector within the public service program. A target clientele consisting of individuals within the community at large, as contrasted to specific interest groups or community sectors.
Induced Course-Load Matrix (ICLM)	n/a	A matrix which describes the distribution of the average load placed on the instruction program by students pursuing various degrees. The matrix is usually four-dimensional: Field of Study by Student Level and Discipline by Course Level.
Institutes and Research Centers	2.1	A subprogram within the organized research program. Those research-related program elements which are part of a formal research organization created to manage a number of research efforts.
Institutional Operations	7.1	A subprogram within the independent operations program. Those program elements which represent operations owned or controlled by the institution and which are foreign to, or independent of, the institution's mission.

Term	PCS Code	Description
Institutional Support Program	7.0	A support program consisting of those activities within the institution which provide campuswide support to the other programs.
Instruction Discipline	n/a	The aggregate of instructional offerings in a specific academic discipline, e.g., all mathematics instruction.
Instruction Program	1.0	A primary program consisting of all formal instructional activities in which a student engages to earn credit toward a degree or certificate.
Intercollegiate Athletics	7200	A program category. Those program elements established to support intercollegiate sports.
Intramural Athletics	7150	A program subcategory. Those program elements established to support an intramural program which involves formal participation by members of the student body.
Joint Products	n/a	The notion that an outcome or product contributes jointly to a combination of two or more programs; e.g., an ancillary unit such as a teaching hospital may directly serve the objectives of all three primary programs.
Libraries	4.1	A subprogram within the academic support program. Those activities which directly support the operation of a cataloged or otherwise classified collection of published materials.
Logistical Services	6.4	A subprogram within the institutional support program. Those program elements which provide procurement services, supply and maintenance or provisions, and orderly movement

Term	PCS Code	Description
		of support materials for the campus operation including those central program elements related to the environment health and safety of the campus community.
Maintenance Operations	8300	A program category. Those program elements which have been established to provide institutionally operated utility services, e.g., a campus heating plant.
Museums and Galleries	4.2	A subprogram within the academic support program. Those program elements established to provide services related to the collection, preservation and exhibition of historical materials, art objects, scientific displays, etc.
Objectives	n/a	Goals or results that the decision maker seeks to attain; hence, the end product or output of a program.
Occupational and Vocational Instruction	1.2	A subprogram within the instruction program. Those program elements established primarily to provide instruction in nonacademic disciplines usually associated with HEGIS discipline categories 5000 through 5500.
Organized Research Program	2.0	A primary program consisting of those research-related program elements established within the institution under the terms of agreement with agencies external to the institution or separately budgeted and conducted with internal funds.
Other Academic Support	9400	A miscellaneous program category to be used for academic support program elements which are not central to the subprogram nor appropriately assigned to the HEGIS discipline categories.

Term	PCS Code	Description
Other Institutional Support	9600	A miscellaneous program category to be used for institutional support program elements which are not appropriately assigned to the program categories listed within the subprogram.
Other Instruction	9100	A miscellaneous program category to be used for instruction program elements which do not fit within the specifications of the HEGIS disciplines.
Other Organized Research	9200	A miscellaneous program category to be used for research program elements that are not appropriately identifed with the HEGIS discipline categories.
Other Public Service	9300	A miscellaneous program category to be used for public service program elements which are not appropriately identified with the HEGIS discipline categories or sectors.
Other Student Service	9500	A miscellaneous program category to be used for student service program elements which do not fit the specifications of program categories within the subprogram.
Outside Agencies	7.2	A subprogram within the independent operations program. Those program elements which are controlled or operated by outside agencies, but are housed or otherwise supported by the institution.
PCS	n/a	The abbreviation for the Program Classification Structure.
Physical Plant Operations	6.5	A subprogram within the institutional support program. Those program elements established to provide services related to the campus grounds and facilities.

Term	PCS Code	Description
Physically Handicapped	7440	A program subcategory. Those program elements established to provide services for the physically handicapped, exclusive of health care.
Planning and Programming	8120	A program subcategory. Those program elements within central operations that are related to the management and planning for the institution, including analytical studies and institutional research.
Planning, Programming, and Budgeting System (PPBS)	n/a	A management system involving the selection or identification of the overall, long-range objectives of the organization and the systematic analysis of various courses of action in terms of relative costs and benefits (Planning); deciding on specific courses of action to be followed in carrying out planning decisions (Programming); and translating planning and programming decisions into specific financial plans (Budgeting).
Plant Expansion and Modification	8400	A program category. Those program elements which represent institutional resources committed to creating new facilities or modifying existing facilities or grounds.
PPBS	n/a	An abbreviation for Planning, Programming, and Budgeting Systems.
Primary Programs	1.0 2.0 3.0	Primary programs contain the activities directly related to the accomplishment of the missions of higher education. Within the PCS, these are defined to be the instruction, organized research, and public service programs.

Term	PCS Code	Description
Program	n/a	A stratum in the PCS hierarchy representing the collection of program elements serving a common set of objectives that reflect the major institutional missions and related support objectives.
Program Budgeting	n/a	A resource allocation technique which facilitates the organization and identification of the activities of an institution in terms of its objectives, displays the cost of these activities over an extended time frame, and relates these activities and their costs to the outputs of the institution's programs. The budgeting aspect of a Planning, Programming, and Budgeting System.
Program Category	n/a	A stratum of the Program Classification Structure hierarchy. Program category is an aggregation of program elements which may be used to sum related program elements across program lines.
Program Element	n/a	The lowest level of aggregation in the Program Classification Structure hierarchy. The program element represents the smallest unique collection of managed resources that are output producing activities; i.e., a collection of resources, technologies, and policies which, through their integrated operation, produce goods or services that are of value to the organization because they contribute to the achievement of an institutional objective.
Program Measures	n/a	Program measures are the data categories associated with the activities of the program element. Program measures will reflect

Term	PCS Code	Description
		quantitative measures of the resources assigned or utilized, activity levels generated, groups or clients served, expenditures incurred, revenues generated, and outcomes achieved by a program element.
Program Sector	n/a	A stratum of the Program Classification Structure hierarchy. Sector refers to a subgrouping of program elements within a program subcategory, primarily intended to identify the level of course for instruction program elements, but may be used in other programs at the option of the institution.
Program Structure	n/a	A classification system that categorizes the activities of an organization according to their relationship to the organization's objectives.
Program Subcategory	n/a	A collection of homogeneous elements; a subdivision of the program category which classifies program elements relative to their academic discipline or functional purpose.
Public Service Program	3.0	A primary program. Those program elements within the institution which produce outputs directed toward the benefit of the community or individuals residing within the geographic service area of the institution.
Recreation	7140	A program subcategory. Those program elements established to provide recreational opportunities for the general student body, e.g., swimming pool, golf course, bowling alley, etc.
Retail Services and Concessions	7340	A program subcategory. Those program elements created to provide retail services in areas such as the book store, barber shop, etc.

Term	PCS Code	Description
RRPM	n/a	An abbreviation for Resource Requirements Prediction Model. RRPM is a generalized analytical model designed to estimate the resource requirements associated with operating an institution of higher education over a specified period of time.
Social and Cultural Development	5.1	A subprogram within the student service program. Those program elements which have been established to provide for the student's social and cultural development outside of the degree curriculum.
Special Session Instruction	1.3	A subprogram within the instruction program. Those instructional program elements which earn credit toward a formal degree or certificate and are offered during a period that is not common with the institution's regular term, e.g., summer session, interim session, etc.
Special Student Service	7400	A program category. Those program elements which have been established to provide services to special groups of students, e.g., veterans.
Student Activities	7110	A program subcategory. Those program elements which are primarily supported and controlled by the student body, including student associations, student newspapers, dances, affairs, etc.
Student Development	7100	A program category. Those program elements established to provide for the social and physical development of the student outside the context of the formal academic program.
Student Organizations	7130	A program subcategory. Those program elements established to support the various student clubs, fraternities, and special interest groups.

Term	PCS Code	Description
Student Service Program	5.0	A support program. Those program elements related to the institution's student body, excluding the degree-related activities and student records.
Student Support	5.5	A subprogram within the student service program. Those program elements established within the institution to provide convenience services to the student body or services to special student groups.
Subprogram	n/a	A stratum of the Program Classification Structure hierarchy. A subprogram is an aggregation level that structures program categories into subsets of the major missions of the institution.
Supplementary Educational Service	5.2	A subprogram within the student service program. Those program elements which have been established to provide supplemental instruction to matriculated students outside of the normal academic program.
Support Programs	4.0 5.0 6.0 7.0	Support programs contain those activities which are necessary or vital for the successful operation of the primary programs. Within the PCS these are defined to be academic support, student services, institutional support, and independent operations.
Supporting Service	7300	A program category. Those program elements related to convenience services provided by the institution.
Urban Extension Service	6700	A program category. Those program elements that are established under the criteria of the cooperative extension service subprogram but are intended primarily for service within the urban areas.

APPENDIX IV

SUMMARY OF CHANGES TO THE PRELIMINARY EDITION

SUMMARY OF CHANGES TO THE PRELIMINARY EDITION

Section I: Overview

1. Changes in this section are principally editorial changes, some reorganization of material, and a stronger emphasis on the relation of the PCS to program budgeting.

2. Figure 1.5 is redesignated Figure 2.3. Reference page 27.

Section II: Structure

1. Nomenclature changes

   a. The descriptions of the intermediate levels of the structure in the PCS Preliminary Edition, "program sector" and "program subsector," are changed to "program subcategory" and "program sector," respectively. Figure 2.1 on page 21 illustrates this change.

   b. The term "component measures" is changed to "program measures," which describes the quantitative indicators of resource utilization and output associated with the activities of program elements. The quantitative measures of "expenditures, revenues, resources, activities, and outputs" as previously stated in the preliminary edition are grouped into the categories of resources assigned or utilized, activity levels generated, groups or clients served, expenditures incurred, revenues generated, and outcomes achieved by a program element. Reference page 26.

2. A more explicit explanation of the relationship between the PCS and the HEGIS Taxonomy in Appendix 1 is given. Reference page 23.

3. Figures 2.1, 2.2., and 2.3 of the preliminary edition are modified to reflect nomenclature and subprogram changes of the structure. Also, Figure 2.3 is redesignated as Figure 1.1 and appears at the end of Chapter 1, page 19. A new figure, Figure 2.4, appears in Chapter II to depict the relationship between the program structure of NCHEMS and that of an institution. Reference page 29.

Section III: Primary Programs

1. Instruction Program 1.0

   a. Regular Instruction, formerly subprogram 1.1, is explicitly broadened into two subprograms, 1.1 General Academic Instruction and 1.2 Occupational and Vocational Instruction.

Subprogram 1.1 principally is oriented to include the HEGIS discipline categories 0100-4900; subprogram 1.2 is mainly associated with the HEGIS discipline categories 5000-5500. Reference Appendix 1 for the HEGIS Taxonomy.

b. Special Session Instruction, formerly subprogram 1.2, is reassigned to subprogram 1.3.

c. Extension Instruction (for credit), formerly subprogram 1.3, is reassigned as subprogram 1.4.

d. Experimental Instruction, formerly subprogram 1.4, was eliminated from the structure.

2. Organized Research Program 2.0

a. No subprogram changes.

b. The major change consists of a more explicit discussion of the relation of "departmental research" within the Individual or Project Research subprogram 2.2. See pages 34-35.

3. Public Service Program 3.0

a. Departmental Continuing Education and Organized Extension Continuing Education, formerly subprograms 3.1 and 3.2, respectively, are combined into one subprogram, 3.1 Community Education. Reference pages 36 and 45.

b. Organized Extension Community Service and Campus Community Service, formerly subprograms 3.3. and 3.4, respectively, are combined into one subprogram, 3.2 Community Service. Reference pages 36 and 46.

c. Agriculture Extension Service, formerly subprogram 3.5, is combined with a new program category, Urban Extension Service, into subprogram 3.3 Cooperative Extension Service. This has resulted in changing Agriculture Extension Service from a subprogram level to a program category level. Additionally, the former program categories of Agriculture Extension Service, which are based on the U. S. Department of Agriculture's Extension Management Information Systems Data Definition document (EMIS), are restructured and recoded as program subcategories. Reference pages 37-38 and page 47.

Section IV: Support Programs

1. Academic Support Program 4.0

   a. Subprograms 4.1, 4.2, 4.3, and 4.4 are disaggregated below level by functional lines in conjunction with the HEGIS disciplines. Reference pages 62 through 65.

   b. Subprogram 4.5, Ancillary Support, may now be disaggregated at the subcategory level either by functional lines or by HEGIS disciplines at the discretion of the institution. Reference page 66.

   c. Subprogram 4.6, Academic Administration and Personnel Development, is created to identify all program elements relating to administrative units supporting the academic programs. Reference pages 53 and 67.

   d. Subprogram 4.7, Course and Curriculum Development, is created to identify all program elements relating to developmental activities for future courses and curricula. Reference pages 53 and 68.

2. Student Service Program 5.0

   a. Subprograms 5.2, 5.3, and 5.4 are disaggregated below the subprogram level by functional lines. Reference pages 70 through 72.

   b. There are no coding changes for subprograms 5.1 and 5.5.

3. There are two definitive additions to 6.0 Institutional Support Program.

   a. (Noncapital) is inserted alongside the title of 6.5.8400 to reflect that the nature of the program elements within 6.5.8400 relate to noncapital costs. Reference pages 60 and 78.

   b. "Research Development," an office or function that is concerned exclusively with resource acquisition for research projects, is inserted as an example under 6.7.8185, Development program subcategory, within 6.7 Community Relations subprogram. Reference page 80.

4. There are no changes in support program 7.0.

Section V: Glossary

Changes in this section are primarily undates reflecting additions and modifications.

Appendices:

Changes in the appendices are primarily updates and reorganization. The Program Classification Structure program categories and corresponding HEGIS codes (where appropriate) are now listed numerically in Appendix I. An alphabetical listing of program subcategories and the corresponding HEGIS codes (where appropriate) is given in Appendix II. The glossary of terms, previously Sect V of the preliminary edition, now appears as Appendix III.

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